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## Traces of Time: Urban Palimpsest and Transformations

Tomas B. Fernandez

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# traces of time : urban palimpsest and transformations

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"Contemporary time... presents itself as a diffracted explosion in which there is no unique and single time from which we can construct experience."

Ignasi de Solà-Morales, "Weak Architecture"

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Architecture

Theory

Culture

time

Lisboa

1100

Scholasticism  
Baptistery, Florence

1200

Chartres Cathedral

1300

Palazzo Vecchio, Florence

Alhambra, Granada

Fernandine Wall

1400

Renaissance

Duomo, Florence

Discoveries

Alberti

Vignola

Campidoglio, Rome

Villa Rotonda, Vicenza

Tempietto, Rome

1600

Forbidden City, Beijing

Mannerism

St. Peter's Colonnade, Rome

Absolutism  
Versailles, Paris

1700

Enlightenment

Rationalism  
Sublime

1800

Pompaal Reconstruction

Ledoux / Boullée

John Soane Museum, London

Altes Museum, Berlin

Crystal Palace, London

Socialism

Chicago Frame

Constructivism

Villa Savoye, Poissy  
Le Corbusier

Modernism

Regionalism  
CIAM

Brasilia

Archigram

Centre Pompidou, Paris

Neue Staatsgalerie, Stuttgart

Roman Art Museum, Merida

Virtualism

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"Contemporary time...presents itself as a diffracted  
explosion in which there is no unique and single time  
from which we can construct experience."

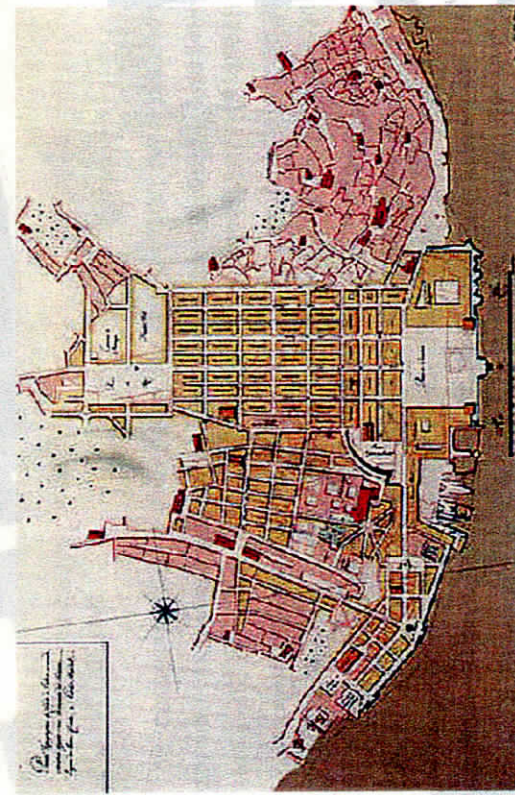
Ignasi de Solà-Morales, "Weak Architecture"

Tomás B. Fernandes

ARC 505 (Prof. Goode)



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The complexity of the built or (un)built urban environment presents itself as a challenge to architectural thought. The tensions and affinities that result from the coexistence of urban fabric, open spaces, parks and natural geomorphology, provide physical evidence of a mapping underlay of the city. The notion of context is thus important and needs to be observed. My fascination for cities deals with two aspects. On the one hand, urban clusters are as natural as is man's inclination for social interaction; on the other hand, cities are rich in architectural undertaking whether it manifests a continuity or disparity in appearance.

*I contend that the city is a deeply scored palimpsest that through specific natural, social and cultural changes reveals its traces of permanence and temporality; therefore, to create in the urban realm is to respond to these vestiges of time through decoding and transformation, as if one was gently manipulating the genome of city.*

“The city, however does not tell its past, but contains it like the lines of a hand, written in the corners of the streets, the gratings of the windows, the banisters of the steps, the antennae of the lightning-rods, the poles of the flags, every segment marked in turn with scratches, indentations, scrolls.”

Italo Calvino, *Invisible Cities*

“Translation is a mode”

Walter Benjamin, *Illuminations*

At the beginning of the 21<sup>st</sup> century, as we face a fast mutation of both our society and the way we live and interact (i.e. the virtual realm), architecture is trying to readapt itself to this pace of change. However, we notice nowadays a progression

towards a “come back” to the urban center, to counter degradation and provide a physical, social and economic renewal of the city's population.

I propose to further this issue of [re]adaptation by bringing together both historical and site identities with the needs for new built conditions, which mirror not so much a new but a changed occupancy of the city and its socio-economic patterns.

The site I have chosen is in Lisbon (Portugal), on *Rua do Alecrim*, a street that is part of a major circulation axis that connects you from the river bank through to the old 18<sup>th</sup> century residential fabric of the city, and rises up a hill alongside the *Chiado* district, the cultural nucleus of the city. It is part of an urban renewal dating back to 1755, year on which Lisbon was severely hit by a devastating earthquake. The site is very richly constructed in historical terms (i.e. layers), namely in relation to time. It has always been recognized as a void because of its irregular topography but mostly due to the notion of ephemeral presence - whether it was a medieval wall, a collection of small buildings, part of a palace or a terraced garden.

It seems to me that site will dictate program. Hence, a library that would bridge both history and new media, along with providing spaces and services that attract people, might be a solution. The idea would be to combine site-specific archaeology with visual and interactive media. Also, and together with its tradition, enhance the qualities of the site by giving it some outdoor function (idea of garden and passage).

In order to pursue this thesis, it is necessary to map and understand the city, see and “read” what sits below, what sits above, what kind of layers does it have, how do they relate to each other and how do they collapse on top of each other. It's a question of testing and decoding.



*In order to go deeper into the thesis contention, one needs to enumerate and explore its many facets. Three large subjects seem to be taking form: first one of concepts and theories, then one of site and finally one of program. However it may sound, this three partite division is not supposed to be a "divided" argument; rather, each part is supposed to relate back to the contention and to the other two parts in a dialogic way. Therefore, we can "speak" in two modes. The first will be thematic, the second, interactive. In other words, theoretical themes will be first discussed in relationship to the hypothesis put forth above, then a discussion on site (as challenge to and carrier of the thesis) will ensue and ultimately, a hint at how program can be site-derived. As a conclusion, one will mention design and process(es) and how they can act as vehicles for this thesis.*

*The notion of time is central to our discussion; we will then start with this theme and reiterate it many times.*

## On Time

Time, as we know it, is a central issue to our "challenge"; if we look back at the hypothesis, it is said, "the city...reveals its traces of permanence and temporality". What is time? How is it of importance to this thesis?

time (tīm) *n.* I.a. A nonspatial continuum in which events occur in apparently irreversible succession from the past through the present to the future. b. An interval separating two points in the continuum; a duration.

Among the many definitions of time in the dictionary, we have taken two basic ones. They bring about very different notions, though intertwined. The first denotes how time is irreversible and that man and nature are deeply affected by it. Essentially, one understands that the Universe is not static, and dynamism is nothing but the *passing* of time. By dynamism one understands change or transformation, using a term that is inher-

ently scientific, in the like of  $(C_3H_8 + 5 O_2 \rightarrow 3 CO_2 + 4 H_2O)^1$ . As Lavoisier<sup>2</sup> once said about chemical reactions: "Rien ne se perd, tout se transforme", which means that nothing is lost, everything gets transformed. The metaphor can also be applied to the world in relation to time: present (both physical and phenomenal) carries the past, albeit added on, or transformed.

The second definition is connected to a more cognitive "discovery": time as *duration*, period which is recognized by virtue of the understanding associations: time of then, time of now, then and now, now and later. Intervals of time are usually only recognized by measure. Day and night, cycles of climatic seasons are some examples of how, through nature, "Life" has been able to take notice of time. In a simple metaphor, Le Corbusier once said: "The earth is our clock"<sup>3</sup>.

Nowadays, thanks to intelligence, man has been able to devise artificial measures to "read" time. One comes across two main types of devices used to determine the relationship between moments of time: the abstract-conventional and the physical-representational. As examples, we can give the "clock time" and the "ruin", respectively.

Our interest goes more towards this latter, a more phenomenal<sup>4</sup> reading that relates to the built, textual and visual realms, as modes of *marking* time.

## On Maps and measures

This idea of measures makes us think of how man maps the world around him so as to orient himself, understand the challenges of nature and finally construct and "conquer".

"Map is the territory, even though paradoxically the territory is not the map."

David Turnbull, *Maps are territories – Science is an atlas*

We know of maps as being "a graphic representation of the milieu, containing both pictorial and non-pictorial elements"<sup>5</sup>.



As an intelligent form of life that lives in symbiosis with the environment, man has resorted to orienting himself. The etymology of the word *orientation* relates back to the astral location of sun when it rises – the orient (east). Hence, there was a conceptual shift from a natural phenomenon to a physical action. The same happens when “drawing” a map because, as Turnbull again explains, maps are “conventional, selective, indexical, embedded in forms of life, dependant on the understanding of a cognitive schema and practical mastery”<sup>6</sup>.

The map then becomes the territory because one uses maps to construct and understand it.



As can be seen with this portulan (navigational chart) made in 1585, depicting the world, there is a combination of representations: first of all, a graphic information *representing* the “correct” contour of the land as was known then (through scientific research); second, there are pictorial elements that *represent* vegetation and spheres of influence (flags, themselves representations); and finally, a complex matrix of crossing lines called rhumbs which are navigational guides that *stand for* the combination of several compass directions adjusted for the winds and drifts.

In this, the so-called conceptual shift has long occurred as maps are now filled with representations that not necessarily relate

to nature but rely heavily on sets of figural and scientific norm conventions rooted in society. To a certain extent most maps would be hard to *read* if it was not for the legend that accompanies them, and, like a dictionary, relates signified to signifier, through the use of pictorial elements (signified) and text (signifier).

So this language of maps depends on something that can be closely related to linguistics.

## On Linguistics and mapping

Semiotics is a science concerned with the structures and generation of our languages. The concepts of semantics (sign as meaning) and syntax (combination of signs) relate back to Saussure's and Chomsky's studies on linguistics. Talking about Chomsky's theories, Geoffrey Broadbent says: “(he) suggested that each of us possesses an innate capacity for generating sentences. We possess certain understandings of the world, which he calls *deep structures*, which underlie every sentence it is possible to utter. They are raised to form the *surface structures* by which we express our ideas by means of certain *generative rules*”<sup>7</sup>.

This relates back to mapping in the way it is structurally meaningful. Indeed, if there were such things as “deep structures”, they would characterize our possibility of understanding and creating maps as simple graphic representations of something; therefore the notion of *associations* comes to mind. The means for generating complex signifier-signified binaries would then spring from our linguistic ability (“surface structures”) of making them be understood, that is through semantics and syntax. So, it does make sense for Walter Benjamin that translation is a “mode”, as one can dissociate the structures (of sentences or signs) from their meaning, then recompose them in another language, just because, and only because there is something of a universal comprehension of things that bridges all languages. Vittorio Gregotti sees architecture “as a system of relations and distances, as the measurement of intervals”<sup>8</sup>. If one cre-



ates architecture that relies on maps, then *that* architecture should be able to be understood just as maps are.

## On Time and memory

"Now let us, by a flight of imagination, suppose that Rome is not a human habitation, but a physical entity with a similarly long and copious past – an entity, that is to say, in which nothing that once came into existence will have passed away and all the earlier phases of development continue to exist alongside the latest one."

*Sigmund Freud, Civilizations and discontents*<sup>9</sup>

With this quote by Freud, one can see this disembodiment of the "Rome of people" as a mode of externalization and rhetorical projection, so as to capture the parallel relationship between the physical passing of time and collective memory<sup>10</sup>. The marks of time, that is to say the influences of time are reflected in the so-called universal collective memory, which is a subjective attribution of meaning to key events in history, as opposed to *history* itself which attempts at defining past events objectively. Therefore, one sees the influence that collective memory has had on history, as a proactive reflection of past experiences and understandings.

In any given society, at any given time, man's placement in time can be defined as a result of that "collective memory" (lens with which one views the past), his present condition and his future aspirations. If one dissects this notion, there will be one component of cultural *tradition(s)* (social, intellectual and skill-based), and another one of maturation or sedimentation of physical elements that surround us, especially the land and buildings, both combined of course with a concept of critical thinking.

The latter component brings us down to the idea of the *palimpsest*. The accumulation of physical and phenomenal layers through time is at the base of the idea of the palimpsest. We mentioned two ideas, one of sedimentation, which one can as-

sociate with physical and inert things (like layers of bedrock), and one of maturation, which is more related to material and organic things (like the growing of a plant and its decay).

Through this conceptual reading of our world, our "palimpsest" turns itself into a document encrypted by the passing of time, of its layers; therefore we think of a text, a text that contains coded information that can be read but also written.

## On Textual reading

So if the world becomes a palimpsest, then cities also become one. Does it mean architecture can be a text as well?

Talking about architecture as "invention" and motor of metaphors, Peter Eisenman said that "to convey the idea that what one is seeing, the material object, is a text rather than a series of image references to other objects or values".

Architecture is then seen as something that can be read. To be able to read is to be able to recognize the linguistic layers that were mentioned above, independently but also as a whole. That is, dissecting architecture to its various structural and meaningful components, as well as decipher it as a whole.

If it can be read, it must also be a language or various languages (we knew that before!). As an example of this reading-writing duality, one can cite Christine Boyer who, in her book *CyberCities*, referred to the urban form as "an attempt to create a visual language for reading the city"<sup>11</sup>. To some extent then, one can speak of a visual text, or a superposition of visual texts. But not all "texts" come in a language that is readily available to everyone, some are underlying or hidden, some others surfacing, and yet others seem to have existed forever. One is therefore in presence of codes, some which relate to the transformations of the land, others to historical development or social evolution, others to global culture, and again, some others that are self-referent. These are evidences that the world is populated with *coded* artifacts, of which architecture makes part.



Creating or inventing urban architecture are actions that somehow involve (de)coding the city.

## On Time and traces

Already mentioned the fact that cities are rich in horizontal and vertical layers, which are physical, and in phenomenal and cultural ones. If the city is a palimpsest containing bits and pieces of these layers, then it holds both its present and its past simultaneously.

Let us use our notion of code-text to understand what lies behind or (under) these *markings* of time over the city and its architecture.

"this suggests the idea of 'architecture as 'writing' as opposed to architecture as image. What is being 'written' is not the object itself – its mass and volume – but the *act* of massing. This idea gives a metaphoric body to the act of architecture. It then signals its reading through an other system of signs, called *traces*. Traces are not to be read literally, since they have no other value than to signal the idea that there is a reading event and that reading should take place; trace signals the idea to read. Thus a trace is a partial or fragmentary sign; it has no objecthood."

Peter Eisenman, "The end of the classical"

In this interesting essay, Peter Eisenman defines *trace* as the visual manifestation of a system of differences, a record of movement causing us to read the present object as a system of relationships to other prior and subsequent movements. Although a little rhetorical, this definition of traces is a useful one, especially for this discussion. This notion presents itself as a loaded keyword that contains the ideas of layers, of time and of code-text.

It would make sense however to distort the concept of "visual manifestation" contained in this definition, so as to include the fact that the influence of time is not only visual but

also many times phenomenal. Culture and society, as dynamic entities, are evidences of these traces. As a result, it becomes relevant to say the urban palimpsest reflects time through its traces.

Time and its interactivity is again a central issue; any city is composed of many layers and possibilities. Layers are physical phenomena or memories of the past and present; possibilities take upon existent conditions and interactions, whether grounded or ephemeral, to offer solutions for some new condition and interaction. Therefore, whether it is past, present or future, a trace always conditions the city to a dynamic reality that is connected to a condition of absence (of presence)<sup>12</sup>. Ignasi de Solà-Morales was successful at explaining this issue of physical and phenomenal traces as pieces of a language or systems that, whether or not analogous, are forced into a dialogue of coexistence. He says that "the notion of archaeology evidently introduces the idea that what confronts us is not a reality that forms a closed sphere but a system of interweaving languages"<sup>13</sup>. Then he talks about the objects of architecture itself "as the outcome of a process of decomposition of superimposed systems, systems that nowhere touch, systems that move independently according to their own logic"<sup>14</sup>.

## On Traces and architecture

While not getting into a conversation on signs and semiology, I would like to go further into the idea that traces instigate the act of reading. How does this reading translate into architecture?

We have talked about maps and linguistics, and also of memory linked to the city. Traces can range from archaeology to any kind of ritual that occurs in the urban realm. They characterize thereof the vocabulary of the (language of the) city, of which architecture is part. Traces are one of identity codifiers of a city, of what makes it unique; sometimes, architecture is brought



from somewhere else, but its bilateral juxtaposition with these traces should make it an integral piece of the city's genome.

"Typical forms selected from the past of a city do not come, however dismembered, deprived of their original political and social meaning. The original sense of the form, the layers of accrued implication deposited by time and human experience cannot be lightly brushed away...rather, the carried meanings of these types may be used to provide a key to their newly invested meanings."

Anthony Vidler, "The 3<sup>rd</sup> Typology"

It seems apparent that these layers "cannot be lightly brushed away", as they are imbued in both our daily lives and in our perception of the city. We could probably substitute "deposited" for "sedimented", as the notion of *sediment* has a connotation that better reflects the layers that we and our world carry under and behind us. In other words, *sediment* conveys the ideas of a fixed-deposit and of erosion. Again, the "palimpsest" comes to mind; that manuscript that still contains *traces* of other writings, traces that are partial by nature. Architecture is an example of this and as Anthony Vidler posits, the new types and forms of our cities should build upon these meanings that time has "carried".

Architecture, devoid of styles, has a curious characteristic: it can be both temporal and timeless. Therefore, architecture also reveals itself by traces of time. There are evidences of "old" architectures in form and memory, evidences of "present" ones and indeed challenges to "future" ones.

A city building often integrates some sort of traditional typology, and even if it offers a new one, it usually takes on the vestiges of former evidences as a base for its own or it responds to the context against which it sits in "tension". By tensions, we mean geometric and phenomenal tensions and affinities that result from the coexistence of urban fabric.

The "identity" of the city or the "soul of the city"<sup>15</sup>, as some

prefer to call it, is its totality – that is the sum of both its land and climate, its traces, its people, its culture, etc. The experience of the city and of its context becomes relevant.

## On the Experience of the city

"The traditional city is primarily an experience of spaces defined by continuous walls of buildings which are arranged in a way that emphasizes the spaces and de-emphasizes the building volumes. It is an experience which can be thought of as resulting from a subtractive process in which spaces have been carved out of solid masses."

Thomas Schumacher, "Contextualism: urban ideals and transformations"

The traditional city and especially its center are usually characterized by their concentrated density. Two things come about: on the one hand, density translates itself into a semi-continuous fabric; on the other hand, density tends to remind us that we are still in the city. In such, the experience of the city is very rich in diversity. The paradox lies in the fact that this diversity may be boring since it is often a variation on a recurring theme, form or style.

Experiences of the city are multiple, but they all include a visual link, whether it is from walking, from driving through or from getting glimpses of it out of a train or subway. These are the multiple levels of the city and their consequence is a multiple reading of the city; also because each person reads some things over others, as all is relative. Mentioned above however was a concept of "deep structures", which should underlie everyone's visual experience of the city (rather than emotional).

Aldo Rossi, in his book The Architecture of the City, pays particular attention to urban artifacts and their typology. For him, *urban artifacts* are the units that constitute the city and when they are replaced or changed, "certain original values and func-



tions remain, others are totally altered"<sup>16</sup>. But when he refers to the identities of a city, or that certain something that remains in us, for him "the whole is more important than the single parts, and that only the urban artifact in it totality, from street system and urban topography down to the things that can be perceived in strolling up and down a street, constitutes this totality"<sup>17</sup>.

Within this notion of totality, one finds the evidence of context. Throughout history, architecture of the (traditional) city has always tried to paid respect to its context. One must refer to the traditional city or "mature" city, because many new cities have been created out of ideas that where alien to their sites and instead pertaining to ideologies or utopias. This has occurred especially in the New World. The exurbanism of our days has its origins in both social ideologies of dwelling and in the blended intertwining of city and land. The loss of boundaries has brought to daylight the issues of sprawl and cyclic edge. At the dawn of the 21<sup>st</sup> century, these have made us rethink the inner city as people procure themselves places outside its center to flee its atrophy and lack of appeal.

## On Urban intervention

One cannot really speak of re-urbanization since the traditional city is fully urbanized. Instead I will mention both "urban intervention" and "infill" and will base myself on essays from three different authors as a window to view this "return" to the city.

"The dense, compact city, that economizes its space and resources and bundles its flow of traffic and humanity, is increasingly proving to be the urban ideal of the future. The concept of *city rebuilding* aims at densification, integration, superimposition, and complexity, at the high-risk maximum of simultaneity of events, opinions, goods, and social conditions, which is simply sensual intensity and urbanity."

AZW, "Hearts of Europe" press release

"The *infill* intervention seems to be part of the physiological evolution of the city. To quote a simile used by Arata Isozaki, it is normal for some of the molecules that make up a living organism to die and be replaced by new ones. Thus these projects fix, through mutation and innovation, the urban model to which they belong, and act within a *virtuous cycle*"

Pierluigi Nicolai, "Minimal acts of deconstruction of the fabric"

"The design of a new work of architecture not only comes physically close to the existing one, entering into visual and spatial rapport with it, but it also produces a genuine interpretation of the historical material with which it has to contend, so that this material is the object of a true interpretation which explicitly or implicitly accompanies the new intervention in it overall significance."

Ignasi de Solà-Morales, "From contrast to analogy"

All of these quotes characterize an increasing attention towards the city center and the urban challenges of contemporary times. They offer us, within the same context, different levels of integration of the *new* in the city.

"Hearts of Europe" was the theme of a congress at the Architektur Zentrum Wien in 1997, where the focus pointed to the state of urbanity in Europe. The outcome of this reunion was that a renewed interest in the actual city centers, rather than in the suburbs or edge cities, was taking place. Hence, we cannot describe cities anymore as "old" and "new", but as a total city, a city of the present, of the future, one of constant transformation. The density of such centers is "sensual", and mirrors the condition of our society in an ever-changing transformation and adaptation to new challenges offered by technology and interactivity. The press release also mentions this idea of complexity of juxtapositions of events, which brings us back to our central notions of time and traces.

Pierluigi Nicolai goes deeper in saying that the act of "infill" is innate to the city's development. Through time, interventions



have kept up with bringing new forms and functions to the city together with subtly transforming its existing shapes, and for that they keep the city alive. The metaphor of the "vicious circle" fits well, as only nature can be the best example for comparison. Indeed, then, there is a double metaphor on nature, which dwells on the fact that, after all, man tends naturally to living in the urban realm; the result is a symbiosis between one another. Changes occur at both levels, and each seems to have influence on the other.

Architecture is the focus of Ignasi de Solà-Morales' essay. The urban intervention must respect its context or it will result in nonsense, a characteristic of egotism, to say the least. The connection to its context must also be dynamic. He suggests that critical "interpretation", or "analogy"<sup>18</sup>, is the necessary outcome of coexistence and that this interaction should give meaning to the infill itself and to the overall project.

I will go further in this. If context is the surrounding area, buildings, streets or parks, then, according to Rossi, it is a group of urban artifacts; if the city's identity is the totality of its urban artifacts, therefore context is this totality and the whole city becomes context. An urban intervention must then find local and extended contexts in order to be site-specific.

## On Contemporary time

"The fourth dimension of the city is time. Time: but which time? Is it the time that slowly but inexorably takes concrete form in different eras, in strata constructed over the plan of the city? Is it the time that presents itself as an incessant increase in velocity, as described in the apocalyptic interpretations of Virgil, and realized today in the revolution of telecommunications? Or is it rather the dissolution of time – as a cyclic unity recognizable to all – into a number of parallel times, both slower and faster, connected with different social groups, but that also break the individual up into separate, non-isochronous periods?"

Dietmar Steiner, *"The 4<sup>th</sup> dimension of the city"*

Dietmar Steiner brings about the notion of "shattered time" as a reality that surrounds us from all sides. As the individual tries to redefine him/herself at the critical end of the Industrial Revolution, by adapting to new conditions and new philosophies regarding its contemporary world, so does he have to respond to the new challenges that a drastic break/acceleration of time have prompted.

Indeed, if the city was the center of human activity, a lot of that activity is now virtual and dependent on the transmission of radio waves and electric impulses. Our visual images and texts are now coded in sequences of 0-1 binaries to allow for an easier and more interactive transfer. The traditional human activities are now mutating.

Even though the infrastructures of the city still exist, and even more so nowadays (roads, cables, sewers, etc.), there is a fractured dissociation in the physical rituals of public and private life.

The consequence of this on architecture is that it has to react and adapt to this interactivity and to the changing needs of the population. The physical urban realm still exists and is embedded into our lives through its traces, but to accommodate its mutations is also to be critical and consistent and all the more curious in our interventions.

## On Transformations and the city

This long discussion really seems to lead to the subject of transformation, the transformation of the city at this point in time specifically.

Rem Koolhaas has been prolix in exemplifying how the contemporary city "suffers" from the condition of modern man versus time. He has often said that the city is prone to an unavoidable fragmentation and that it should look in the consequences and possibilities of actual mutations that are occurring<sup>19</sup>. However right he may be, the fragmented city is something that happens less in the urban center than in "sprawl".



And the fragments in this situation are not separate but colliding.

"The land is like an immense crucible in which the processes of nature and the peculiar events of social exchange interact over time with unpredictable effects."

James Corner, *Taking measures across the American landscape*

"Through its etymological root, *modus*, modification is linked to the concept of measure and the geometrical world of regulated things. It is modification which transforms *place* into *architecture* and establishes the original symbolic act of making contact with the earth.

Vittorio Gregotti, "Territory and architecture"

The idea of transformation has to stem from nature obviously, and both Gregotti and Corner know it. James Corner focuses on the "processes of nature" and their interaction with man. In the definition of the word *process*, we see that it refers to a series or sequence of actions. Therefore, a process is an active and dynamic thing that necessarily happens through time. As mentioned above, transformation is a natural thing, as exemplified by the many constituents of nature in their virtuous cycles of development. The "events of social exchange" can also be lightly read as the influences of man on the land, whereby architecture and the *act* of construction are inherent and indelible parts.

The displacing a rock or putting down of a foundation is the first *act* of transforming the land. Gregotti himself acknowledges that architecture is the "transformer". From the point when this is done, the site is bound to an everlasting change due to construction or decay. To this we may add that the "forces" of nature are never passive, and that they can radically disturb any constructed landscape.

The concept of modification is very interesting. If its etymological root *modus* relates to measure and geometry, then *mode* relates to both of them too. If translation is a modification and a *mode*<sup>20</sup> as well, then it can relate to the measure and to the geometry of things. In other words, architecture can be translated through measures and universal geometries.

As we see our cities transforming, many of the new introductions are now dependent on this concept of globalism that has characterized the second half of the 20<sup>th</sup> century and seems to be a natural occurrence in the evolution of things. Are cities losing their identity, as global culture transforms our realm and unifies them into a super-city?

## On Culture and local identity

I will define culture as the totality of socially transmitted behaviors patterns, arts, beliefs, institutions and all other products of human work and thought<sup>21</sup>.

Most commonly referred to as Critical Regionalism<sup>22</sup>, architects are reacting to this global culture by reintroducing some local identity to works of architecture.

"Cultural Geography explores specific evidences of human presence in the world at scales ranging from the global to the local, and questions how we may better understand ourselves, our pasts and futures as social beings, through understanding the landscapes and places we create, both materially and imaginatively."

Denis Cosgrove, *lecture syllabus - UCLA*

Earth has many people, and indeed many minds thinking at the same time. Not all think about the same thing nor do they have the same bases for reference. When one ponders about global culture, one realizes it is the result of a narrowing down of physical and intellectual distances between different cultures through trade and exchange.



"Paul Ricoeur has advanced the thesis that a hybrid *world culture* will only come into being through a cross-fertilization between rooted culture on the one hand and universal civilization on the other."

Kenneth Frampton, "*Prospects for a critical regionalism*"

The consequence has been that, through mass communication and consumerism, the same information and products are distributed to the whole of the world. This has challenged local cultures, especially if the "introduced" culture presents an easier relationship to beliefs, life and work.

The same thing has happened with architecture, with styles that have somehow emerged around the world in the same fashion, without any critical identity. Some of this has to do with material use and form, but other clonings have also happened.

The question is not whether architecture should or not follow styles, but rather whether architecture should be responsive to its environment, which we believe it should.

Ignasi de Solà-Morales has called this an architecture of *resistance*<sup>23</sup>. In other words, it translates a will to resist to influences that can be destructive of local culture, especially when it deals with identity. Indeed, cities are now populated with items from other cultures or from this so-called global culture. These exist mostly under the patterns of fashion, consumption and semiology. This "localism" can also be related to the notion of tradition, which is the transmittal of specific social rituals, thoughts and skills through time. Popper tells us "tradition is related to a felt need for a structured social environment"<sup>24</sup>.

Therefore architecture of *resistance* is supposed to strengthen the society and its culture, as reflected by time.

## On Time, temporality and contingency

As a final word in the theoretical examination, I will come

back to the issue of time.

The architecture of the city reveals itself through a *palimpsest of traces*. It must be read, as a visual and phenomenal text or map on which temporal evidences have left their mark. These temporal evidences are embedded in the layers of a site, of a city. Some things remain, others also remain but are transformed, others disappear but leave their trace (physical, cultural, emotional), and finally there are others that just vanish without trail.

These are the evidences of permanence of the city and its temporality, which constitutes the contingencies of city. Bruno Marchand, in a recent article on Alvaro Siza's work, comments:

"The ruin carries in itself the weight of history and of memory; it even evokes contradictory sentiments, of contingency – the time that passes and erodes matter – and of permanence, the resistance to time, precisely... (the ruin) transcends and brings out the temporality of the new constructions which then appear as a transition between two historic moments: past, present and future melt into time that passes."

Bruno Marchand, "*Representativity and temporality in architecture*"

Here the metaphor of the ruin is not a historicism. Rather, it stands for these *ruins* of time, called *traces*, which actively revitalize the city in its constant reformulation. As a response to its physical and social environment, architecture must take upon the traditional city as an entire artifact that has a presence, an identity, which does not want to disappear but flourish with diversity. James Corner mentions that "fittingness derives less from calculative accuracy and technical proficiencies than from refined instincts about place and culture, responding always to the play of contingency"<sup>25</sup>.



About cities in Europe at the end of the 20<sup>th</sup> century, a major report for the EU concluded:

"It seems likely that reurbanisation, reflecting economic restructuring and policy efforts to improve living, working and leisure conditions in city centres, will continue."

James Woudhuysen, "Why Cities Have a Future"

The city is a non-constant variable, part of the equation that makes up our present world. European cities are mostly related to the idea of the traditional city. This latter is especially characterized by its dense and active urban center, legacy of centuries of socialization, economic trade, and intellectual and artistic exchanges. Our cities have changed a lot since the first urban settlements 10000 years ago in the present Middle East and Turkey. But never was this change so abrupt as the one that has been felt since the Industrial Revolution, both in its form and shape.

In the second half of the 20<sup>th</sup> century, urban environments have entered into a stage of perpetual mutation as the occurrences of exurbia, abandoned city centers or, contrarily, massive densification, have contributed to the so-called modern urban "chaos".

Lisbon is one such of those cities. Its center has "experienced" steady progress and transformations, even radical ones. In the last 25 years, however, one has observed a decay of the inner city, a tendency that reflects a global trend. This is due to more than one thing but mostly to a growth of the city in particular focus to outlying urbanizations (population growth, population commute). Indeed, in 20 years, the census of Lisbon – within its political city limits – has gone from nearly 900,000 to over 650,000. Conversely, the metropolitan area has seen its population grow to as much as 2.5 million people from only a million in 1980<sup>26</sup>. This amounts to a quarter of the population of the country. Indeed it reflects a large concentration of popula-



tion and the basis for a chaotic "people traffic" coming in and out of the city, as it still remains the place of labor.

Lisbon's city center is composed of four parts. The first and central part, the *Baixa* (or "downtown"), is located on a valley that borders the river between two main hills, and is the traditional center, containing both the commercial and political cores.. By commercial, one understands the conjunction of finance (banks), local retail and the few remainders of an artisan class. This district stretches from the political *Praça do Comércio* (or "commerce square") on the riverbank to the *Rossio*, a more secular square, further inland.

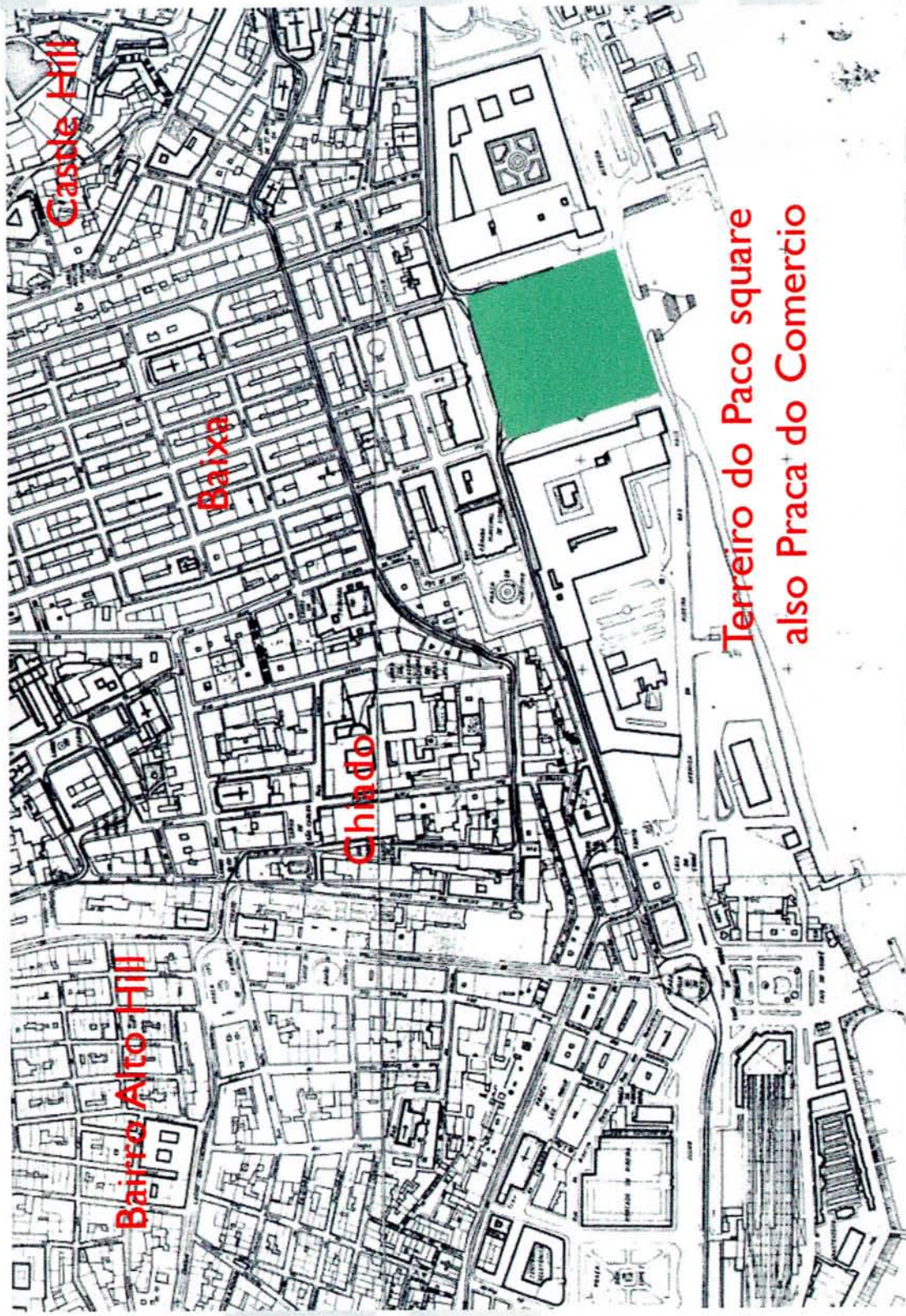
To its right, one finds the "original" Lisbon hill comprised of a dense medieval-based fabric cut through by a complex web of narrow streets, which is topped by the Moorish castle, symbol of the city's past. This is a strictly residential area, most of it in shameful decay.

To the left of the *Baixa*, another hill, the one of the *Bairro Alto* (or "high district") populated since the 16<sup>th</sup> century, which on its first lower slope contains the *Chiado* district – on which is my proposed site. The latter area is characterized by its cultural institutions, which together with up-market retail, has made of this area a favorite for residents. Further on the hill, one finds a continuous residential fabric.

by o p e n i n g s i n e r y



Rossio Square



direction, where the



One cannot forget our fourth part, the port. Indeed, except for a narrow area around the *Praça do Comércio*, the riverbank has traditionally been taken by maritime-related activities, legacy of the *Discoveries*.

This depiction of downtown is somewhat erroneous for nowadays, a lot has changed. Due to a fire that occurred in 1988, 18 buildings in the *Chiado* were destroyed in a ravaging fire. These constituted the prime retail property of Lisbon. Therefore, due to a disaster of nature, the city was stripped off of an inherent center. The results were obvious, as the large population that used to come downtown stopped coming, causing a lot of business to leave. Also at the same time, as a coincidence, the city had been observing the rise of shopping centers, spreading at its perimeter.

So, we are in the presence of a site that has recently seen an abrupt structural transformation of its fabric and custom use, evidence of the "vulnerability"<sup>27</sup> of the city.



"on fire" August 1988

"This condition of vulnerability is indissoluble from the structures of the city, apparently so solid and lasting. If taken in another sense than that of extreme situations, it is to a great extent the reason for and the motive force behind its inadequacy and adaptability, that is to say its transformation."

Gonçalo Byrne, "*Lisbon: a vulnerable city*"

The area, left to oblivion during its lengthy reconstruction, has had, in its renewal and reconstruction efforts, to cope with the fact that people have substituted it for other areas of the city in their daily urban rituals. It presents itself as a functional and architectural challenge as it attempts to re-attract the population. The reconstruction, lead by Alvaro Siza, is now finalized and most destroyed buildings have been recuperated (their facades maintained – as requested) and transformed into hybrids of consumption, office space and housing, not entirely different from what they were before, but at least, with a clean face and refreshed function – one that responds to the culture of our 21<sup>st</sup> century days.



the *Chiado* devoid of people



On talking about his book Delirious New York as a mirror of contemporary time and urban realities, Rem Koolhaas refers that his research “was directed towards the connection between new programmes – as an expression of new social demands and new forms”<sup>28</sup>.

There is in fact a need for some “invention”. Architecture does not radically change since it is grounded on two evident things: gravity and history. But it does transform itself and adapts to new realities, whether they deal with culture and physical change or with techniques of construction and materials. In developing our program, we will retain the following:

“A *diagram architecture* is an architecture that *behaves* like a diagram, indifferent to the specific means of its realization. It is an architecture that establishes a loose fit of program and form, a directed field within which many activities unfold, channeled but not constrained by the architectural envelope.”

Stan Allen, “*Diagrams matter*”

We have now put together a collection of concepts, relating to theory, site conditions and program development. These will be our grounds for creating architectural form, and within it there are design and process(es).

First and foremost we are talking about urban analysis.

For this, one needs to study changes in the city through time, its social and physical characteristics, active and inactive, progressive and traditional. What has been, is, or will be subject to transformation.

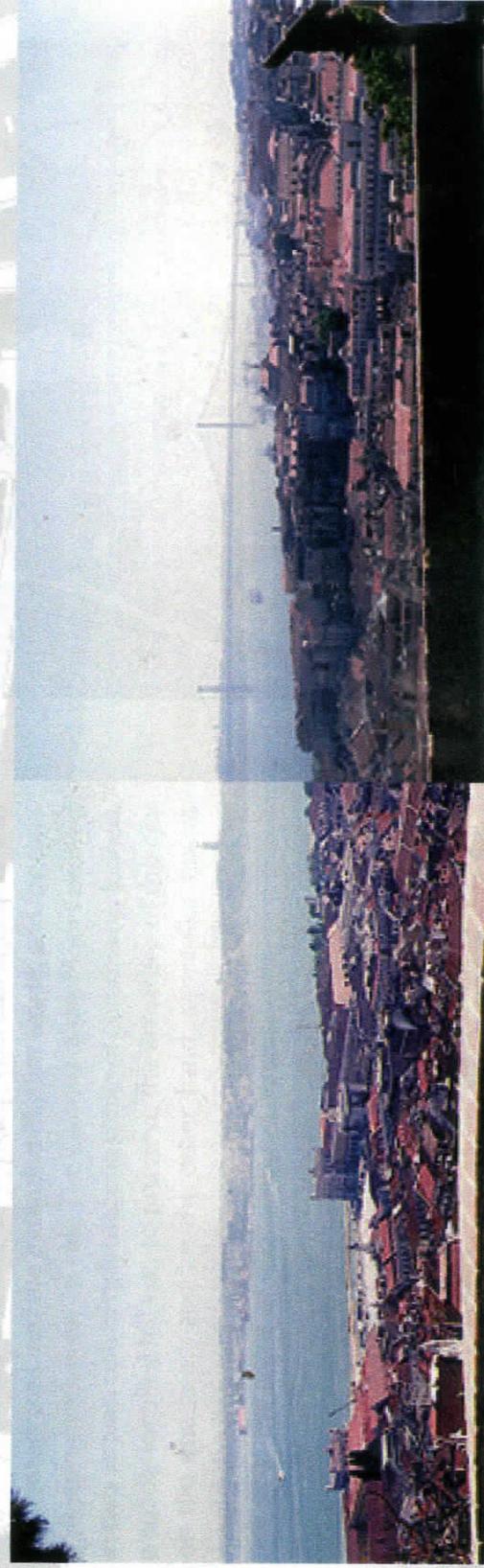
In the processes of design development, one has to pick techniques and references.

A well-known design process that can be used is collage, particularly with Lisbon, a naturally “collaged” city. For Colin Rowe, the notion “accommodates both hybrid display and the requirements of self determination”<sup>29</sup>.

The use of diagrams or the understanding of the city as a diagram should decode architecture as a combination of complex actual and virtual configurations that rely on both episodes/contingencies and durable presence.

There is a need for precedents, past and present.

But also a need for testing, testing what “invention” can be.



the Baixa and the Chiado from the castle hill



Lisbon is an old city, one that has been here for many centuries.

Due to its geostrategic location on both the western tip of Europe and on the large estuary of the navigable Tagus River, *Olisipo* (its Roman name) soon developed along the coast to become a major trade settlement for Greeks and Phoenicians. As a token, a fairly steep nearby hill offered protection and shelter, and thus on it was built a fortification, which would then develop into the present day Moorish castle. As part of *Hispania*, the Roman province of the west, Lisbon grew rapidly into a city-port.

This characteristic was due to the city's inherent geographical qualities, adding to the fertile lands of the surrounding valleys and the temperate and sunny climate.

Not much was felt due to the fall of the Empire and the city's inhabitants continued with their trading activities, an exploit that would later shape the mentalities of the generations to come.

Such a merchant city little could have done against the invasion of the Moors in the 8<sup>th</sup> century. Therefore, Lisbon was soon integrated into the extended Muslim world, and for over 350 years lived under its rule. The *Lixbuna* of the Moors evolved in two strains, one of defense, one other of commerce. Indeed, a solidly fortified hill was to preserve the armature of the city on the one hand; and on the other hand, agora-like spaces would develop within the lower city in parallel with the harbor, all in the name of economic exchanges.

In the 12<sup>th</sup> century, with the secession from the Castilian crown, the leaders of *Condado Portucalense*, a duchy in the north of Portugal – which had grown out of a feudal system – took on a nationalistic pride and decided to create a country by conquering it from the Muslims. In 1147, *Afonso Dom Henriques* conquered the city of Lisbon and defeated the “Infidels”<sup>30</sup>, proclaiming himself King of Portugal. Lisbon, by far the largest

richest city of the land, became the capital of the country. By 1250, all the Moors had been expelled back to Morocco or the south of Spain, and Portugal took shape with the same borders that still remain today. As capital, Lisbon grew even more rapidly with a centralization of power, trade and culture. It outgrew the Moorish walls that protected it further into the now recognized as *Baixa* valley and onto the surrounding hills. Its fabric was congested and characteristic of Medieval times. Through processes of embankment the waterfront was regularized so that the port would develop in a more rational and efficient way. By the 15<sup>th</sup> century, the royal palace was transferred to the *Terreiro do Paço* main square

(“terrain of the palace”) on the riverfront, as an evidence of the city's open arms to the sea.

*Dom Fernando*, king of Portugal, decides to replace the old city walls, and builds the so-called *Fernandine Wall* between 1373 and 1375. This new enclosure was a response to the city's demographic expansion and to its defensive vulnerability. The population was then around 65,000.









Portugal was little by little (re)opening up to Europe and the growth of the “bourgeoisie” started making its way into society – especially the aristocratic and merchant classes. The population augmented again and the city expanded following a natural south-north axis, away from the water. The large avenues, *passeios* (green walk-ways) and parks built in the period between 1870 and 1890 were the local translation of Paris’ *Hausmanization*.

The *Estado Novo* (fascist dictatorship) that started in 1933, lead Portugal and its cities into a new wave of “closure”. The outcome had to be reflected in Lisbon, as capital of the country and its ultramarine empire.

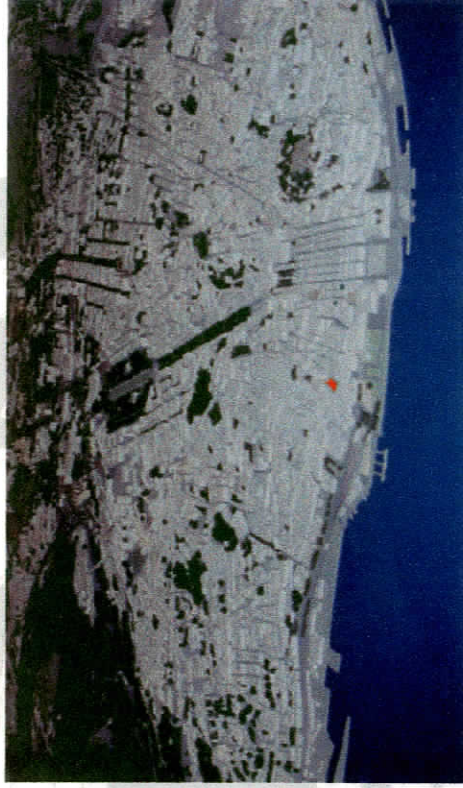
It was not until the 70’s and especially after 1974, year of the revolution that brought back democracy somewhat by force, that Portugal opened its eyes to the world again and started incorporating the concepts and products of the “global culture” into its own.

In the 1980’s, one notices the stereotypical contemporary phenomena (in an European sense): explosion of suburbia, together with large housing projects; multiplication of industrial fabric in outer satellite cities –which themselves notice a boom; decentralization of power; appearance of shopping centers in periphery to the detriment of local commerce.

In august 1988, a fire destroys part of the 18<sup>th</sup> century fabric that sits at the crossing between the *Baixa* and the *Chiado*. These buildings constituted the primary center of downtown’s retail. The consequences were obvious: greater migration out of the city center and oblivion of downtown.

In parallel with the reconstruction, several other developments take place; namely the one of the Expo’98 grounds, which becomes a new pole of residential attraction, supported by commercial and institutional infrastructures.

In 2000, with the renewal carried out, the challenge is to bring people back to the *Chiado* and amazingly it is working. It seems that a lost pride has been regained.



modern Lisbon from the “air” (model)

## On Lisbon: urbanism and architecture

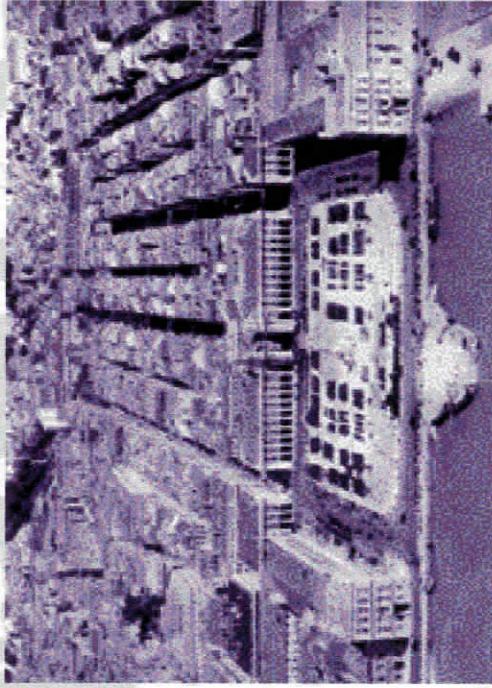
“The city is characterized by the repetition of small units that make up the continuous urban fabric, out of which large institutional buildings sporadically emerge. I have always been amazed, in Lisbon, by the contrast between the fragmented and almost cubist fabric, influence of the Arab culture, and the large constructions, the large palaces. This double record shapes the intensity of the architectural expression.”

Alvaro Siza, *Immaginare l'evidenza*

In this section, we will discuss one main thing: the city of *Pombal*. The task of reconstructing an entire city from debris makes of Lisbon one of the most successful enterprises of the Enlightenment. Its permanence as a plastic fabric that covers all of 18<sup>th</sup> century Lisbon, poses an important issue to any urban intervention. The neutrality and extreme rationality of this architecture counters its boredom with a collage of different city layers, an effect that is primarily based on the meeting of the city’s irregular topography with the grid(s) that covers it. As mentioned before, the *Marquês de Pombal*, minister of the



King, was charged of planning the rapid rebuilding of the city so as to give it a dimension of grandeur and functionality. The idea of "grandeur" is based on the fact that Lisbon contained the traces of a glorious past, the one of functionality stems from a necessity to house a homeless population of over 50,000.



There was then a competition for designs, all of which ended up with an orthogonal grid for the lower downtown area. The winning proposal by *Eugénio dos Santos* and *Carlos Mardel* was perhaps the most rational of them all. It was composed of long rectangular blocks marking a grid that stretched in its ideal configuration from the river and the *Terreiro do Paço* (or later *Praça do Comércio*) to the *Rossio*, in other words connecting the two main squares of Lisbon. The asymmetrical location of the *Rossio* is essentially due to historical reasons. It used to be the public market in the Muslim period, and since then always a large public space. It seems then that this scheme was not only universal in concept but also responding, to a certain degree, to the urbanism that used to exist. The complexity or rather, the uneasiness of this design was seen in its coexistence with the topography. Indeed, from the plate produced by the architects, it is almost unable to perceive that

the hill of *S.Francisco* is really a hill, since the grid is applied over it as it is downtown, producing awkward conditions at the hill's steepest points. Also, one sees that the castle hill remains untouched with its characteristic dense medieval fabric, probably a consequence of its steep topography not being able to cope with a grid.

One can then discuss the details of urban development and architecture. The plan asked for wide streets that would prevent, in case of a fire or another catastrophe, one building's debris to affect its opposite neighbor.

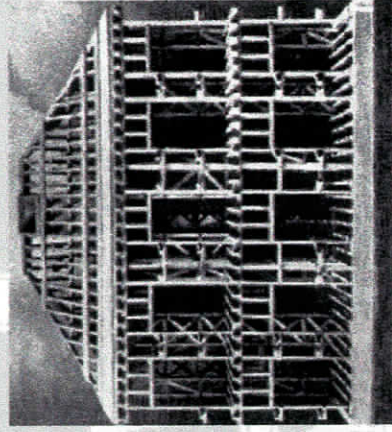
The typical "pombaline" construction is conceived more as a block than as an independent building. It would have a height of 4 stories; the first two dedicated to commerce, the top two and the attic would be residential. It would be capped by a double pitch roof of german influence. From the street, one could hardly see the terracotta-tiled roofs, and the only reason why one could see them is due to the natural "picturesque" qualities of Lisbon's topography. The rhythm of the façade is (a,a,a) whereby window and wall take the same dimensions (usually around 1.5m).

This rhythm was to become the system by which all the façades of buildings, whether residential-commercial (neutral), institutional, or aristocratic, would be based upon.

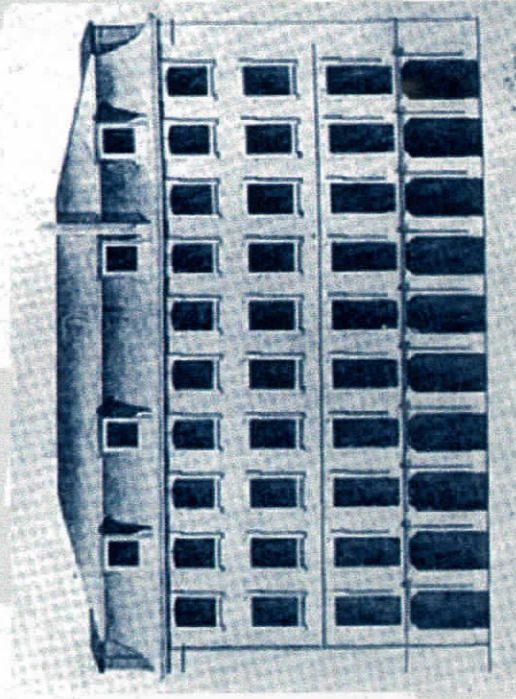




One of the innovations of this large-scale urban project was in the process of techniques and construction. In order for the buildings to withstand future earthquakes, the walls were devised as a double shell. The actual structure would be a wooden *gaiola* ("cage") of studs and joists that would attach to the external masonry wall by means of metal guides. The external enclosure was by itself its own structure. The trick in this would be that, in case of an earthquake, most of the pinned wooden structure would survive, even if the outer walls crawled.



the "gaiola"



The rush of building such an immense continuous piece of fabric in so little time resulted in a sad outcome for the architecture of the city's interiors. Contrarily to the palazzo type buildings of Italy, the *Pombal*/"fabric buildings" rarely had an inner courtyard, making them very dark. Its simple layout asked for divisions in enfilade, which were archaic and not very functional. Modern critics have many times referred to this issue as a structural urban flaw:

"The importance assumed by the definition of facades in Pombal's city, which was translated into the enormous pile of designs that have survived to this day, contrasts with the total lack of plans for the interiors of the buildings. The "framework" of the city left undefined, for good or ill, the specific use of interiors and its evolution. It is precisely this openness that, while it demonstrated a high degree of adaptability to the evolution of the city over the course of the years, has revealed its limitations from a certain moment onward."

Gonalo Byrne, "*Lisbon: a vulnerable city*"

Siza carefully notes that the city is not mute in reaction to its neutral repetitious fabric. The *architecture* of Lisbon happens first at the level of detail, where mutations occur ("the large palaces"), then as a composition of multiple overlappings, which results in a bizarre overall picture. It is with this framework in mind that one will attempt at creating architecture that mimics this "cubist" quality of Lisbon.

### On site: natural and historical developments

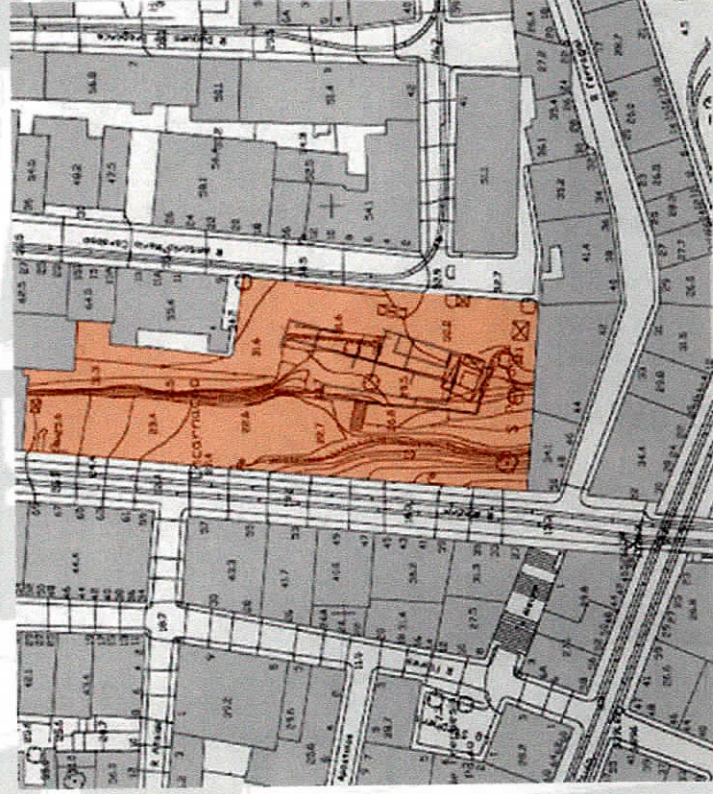
My site is located on the first stretch of *Rua do Alecrim*, an important street which is part of a link that connects the river-side to the urban expansion of the late 18<sup>th</sup> century, and rises up th *Chiado* hill.

The *Cais do Sodre* square, at its foot, is a transportation hub for westbound trains, subway and ferry boats that cross the river.



The reason why *Alecrim* street has been a major circulation axis goes back to its parallel condition to the west *Fernandine* medieval wall of the 14<sup>th</sup> century. It soon became part of the recognizable boundary between the inner- and outer-wall city. The site itself has a street frontage of 120m (400ft) with a slope of 11m (36ft), and then extends back, first in a semi-flat condition, then in a steep terrace-like one, which is topped, 15m (50ft) higher – at its highest point – by another street frontage, this time a secondary street that is somewhat parallel to the former one.

There are three important things to mention on the site from a natural and historical standpoint: first, it contains one of the few remaining open-air pieces of the medieval wall of Lisbon, characteristic of the terraced profile; second, it contains *traces* of temporal buildings that have for moments of time filled up parts of the site; thirdly, it has been devoid of any complete infill, as through most of its history, it was an open space or a



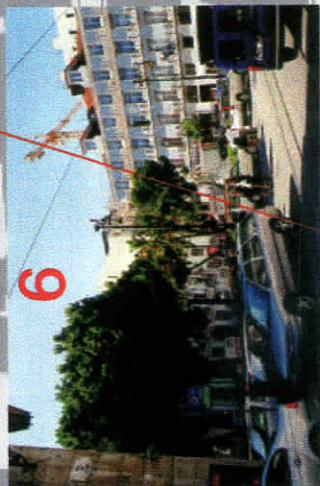
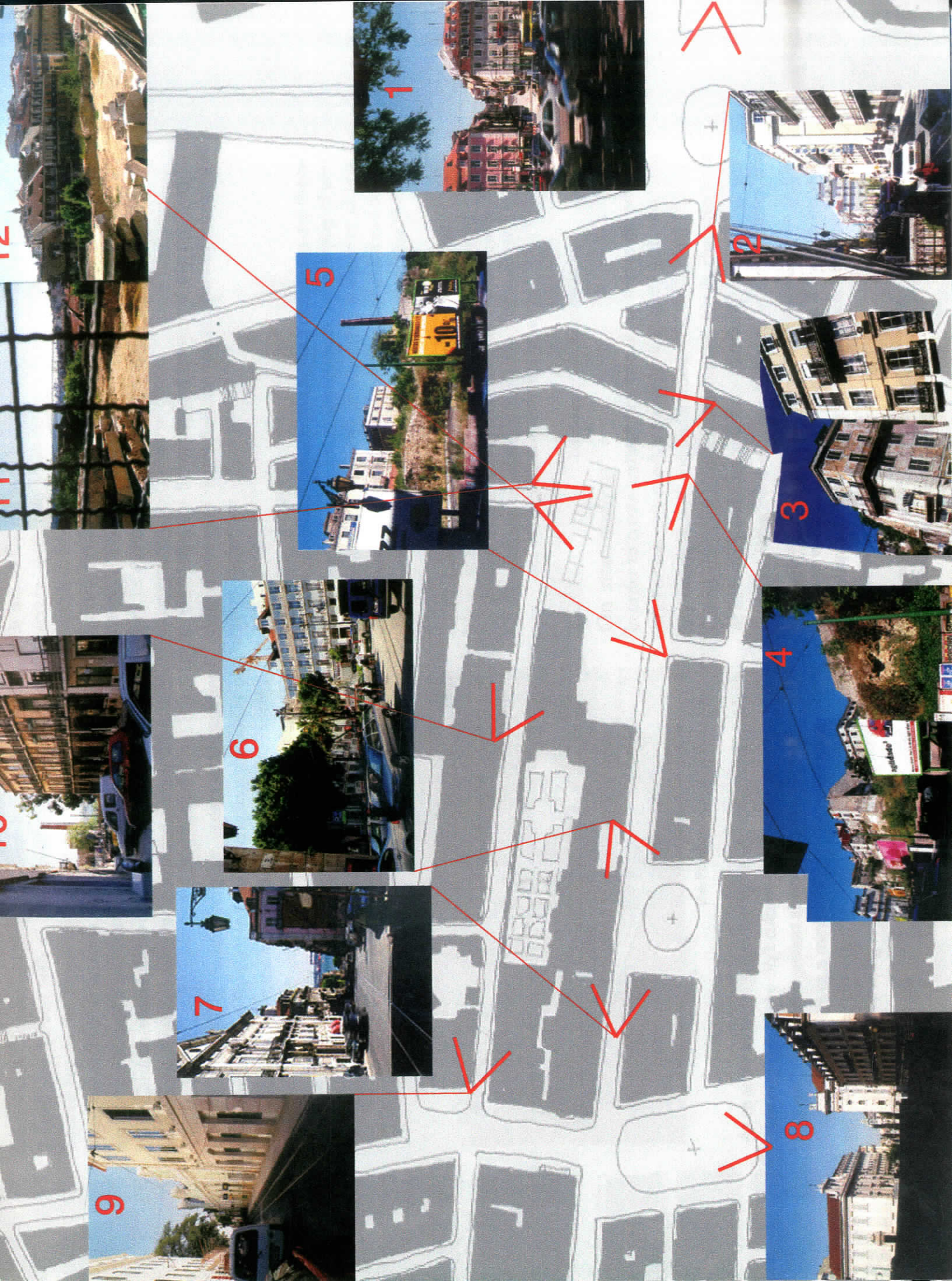
series of gardens. These three characteristics come together in a simple fact, which is that the site is heavily “constructed”<sup>31</sup>. The *Chiado* district developed from the 12<sup>th</sup> century on, mostly as the grounds of the *Convento de S. Francisco*, a monastery of the Franciscan order. Most of it was composed of land fields that were owned by the monastic complex. The area gained importance, as more and more people decided to rise up on the hill. Its status within the city was reinforced by the construction of the *Fernandine* wall, which enclosed it to the west.



It rapidly becomes a preferred site as, with the arrival of the Discoveries and the expansion of the city, the newly rich noblemen decide to build most of their palaces on the west and south sides of the hill.

In the late 16<sup>th</sup> century, one of those families, the *Braganças*, takes possession of our site from the lands of the convent to turn it into their terraced garden (hence the profile, and the retaining wall). The medieval wall was partly destroyed to allow for this construction. Besides, at the time, with the city fully burst out of its enclosure, the wall had been widely incorporated into the buildings that flanked it.

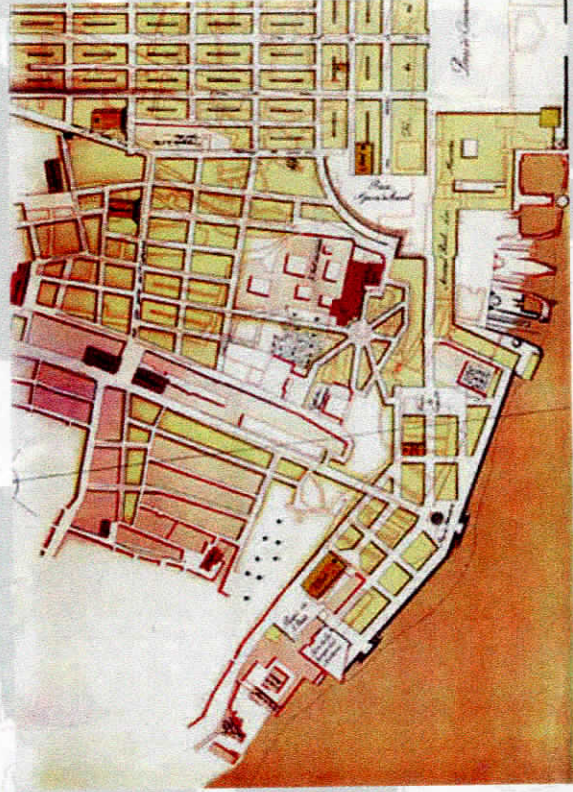






With the earthquake of 1755, the *Chiado* is re-planned in the Enlightenment fashion with an orthogonal grid that is slightly skewed due to the topography of the site. The convent subsisted but most of its land was bought out. It goes the same for the destroyed palaces on *rua do Alecrim* and on *rua Antonio Maria Cardoso* (the parallel street), which the *Braganças* bought. Some of these palaces were reconstructed, namely the former *Valença* house.

In 1768, by order of *Pombal*, religious orders as institutions were banned from Portugal in a reaction against the power of the Jesuits. Therefore, the large block-monastery of *S.Francisco*, takes on different cultural programs and functions. Part of it becomes the Fine Arts academy.



the Pombal reconstruction map

As an actor of urban and cultural change, the *Chiado* gradually takes on a role as the city's cultural center with an opera house, theaters, clubs and museums all being built throughout the 19<sup>th</sup> century. In parallel, as a mirror of its bourgeoisie, the district also becomes the city's upscale retail center, with the first department stores opening at the turn of the 20<sup>th</sup> century.

By the 1800's, the site's south side remained as a garden and a terrace, with two small towers being built, the rest was rented out to other tenants. At this time, many buildings were constructed and then destroyed of which we have little information. The last was the construction of the *Jansen Beer Factory*, its access ramp, and the adaptation of the *Valença* palace to commercial and industrial depot.

In the 1950's, the factory closes down and the site is again cleared. The most recent function was of a parking lot, on the higher flatter side.

## On site: thoughts

Our site is a site of tension and layers. These layers are themselves the *traces of time* that coexist in the interplay of permanence and contingencies of the city. It is a mirror of how the city's transformations, many of them haphazard and due to the adversities of nature, make Lisbon a "vulnerable"<sup>32</sup> city.

"Lisbon is not characterized by (many) emblematic public spaces or by great formal definition; it is on the other hand characterized by numerous small "organic" spaces which are the product of the meeting of different fabrics and intersections of ancient rural itineraries."

Luis Soares, "Plan for a new Lisbon"

## On site: analysis

In order to create architecture, one needs first to decode the city. For this, one needs a framework of study with which the city can be viewed and understood.

Lisbon is a city of hidden moments and details, characteristics of its history and contemporary situations.

Geoffrey Broadbent explains in his essay on linguistics and architecture<sup>33</sup>, how Claude Lévi-Strauss notes how, more than in other works of art, "the city achieves a balance between natural and artificial elements; it is an object of nature and a subject of culture".

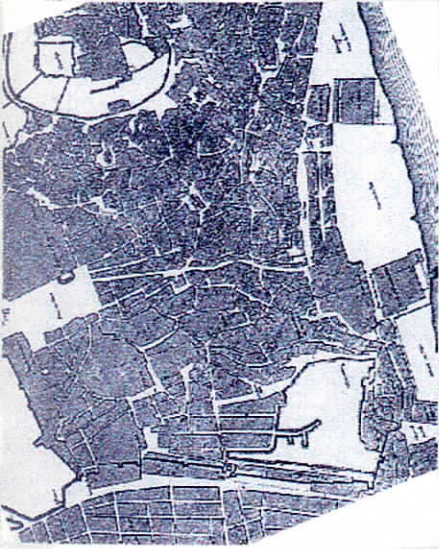


With this in mind, our site analysis will then follow two main lines.

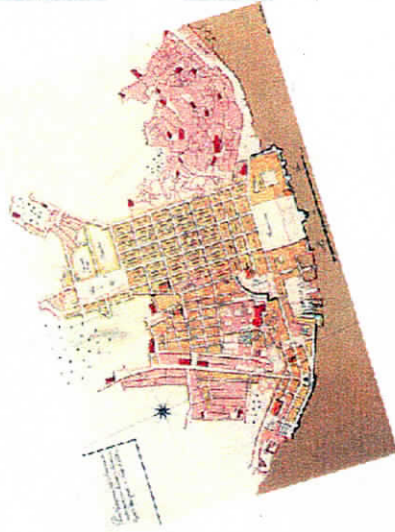
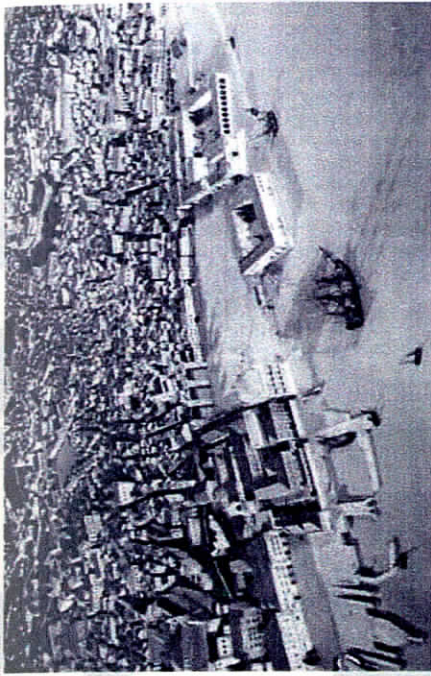
- first, one of time and transformation through 2 categories: natural and cultural.
- then, one of urban analysis.



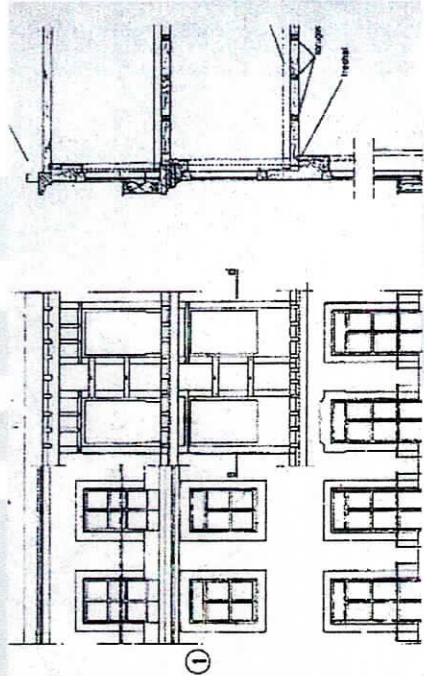




1650



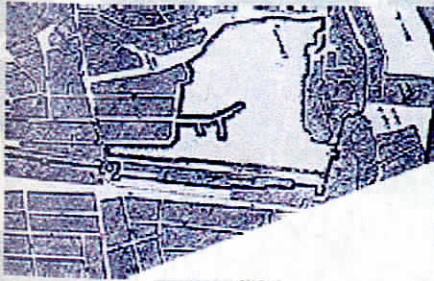
1755



2000







1650

Taking three stages of urban development through time;  
1650 - first accurate map of Lisbon available.

The *Tinoco* map reflects the Lisbon at the time of the Discoveries, where "extramuris" development contrasts with a dense and sinuous medieval fabric

1755 - reconstruction of Lisbon.

A public design competition is held to offer ideas for a reconstruction of Lisbon; the winner was the famous "plan no.5" by *Mardel* and *Santos*. In it, one sees the overlaying of a universal grid, on both valleys and hills, which mirrors the rational ideas of the Enlightenment as well as the experiments in the New World.



1755

2000 - present day

Not much of downtown Lisbon has changed in form since the Pombal reconstruction. New buildings seem to substitute the old by usually preserving the latter's facades. The consequence of such preservation laws is the present state of my proposed site: its lack of permanent construction through time has resulted in a status quo of "oblivion".

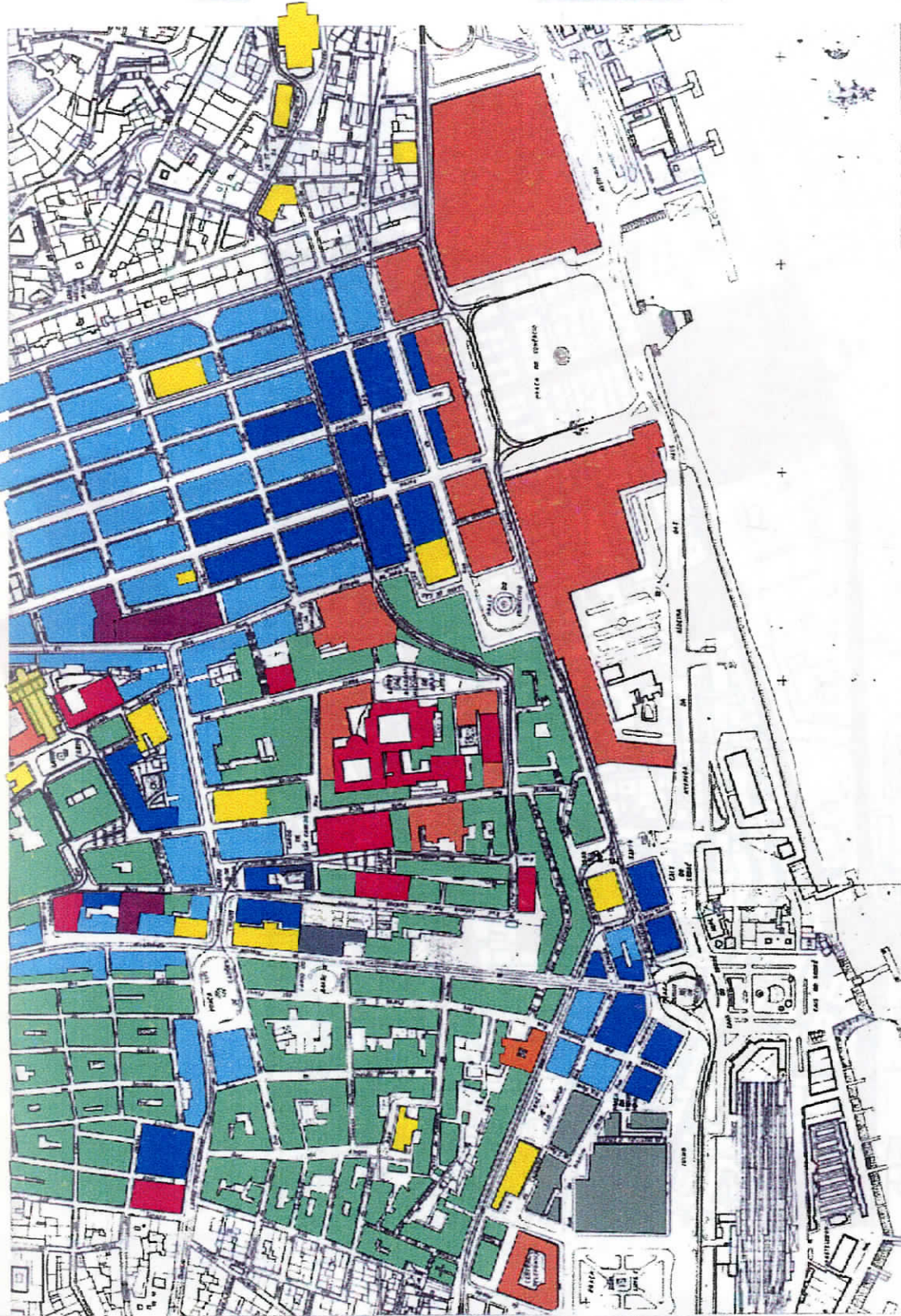
Within the natural vs. cultural analysis, set up in a cause-effect relationship, a few other sub-categories arise:

- urban form
- power hierarchy
- rituals: function / use
- landscape-nature
- ruins
- cultural hierarchy



2000





- Religious Buildings
- Government and Service
- Markets and warehouses
- Residential
- Commerce and Offices
- Cultural Institutions
- Commercial below Residential above
- Retail





from which there emerge



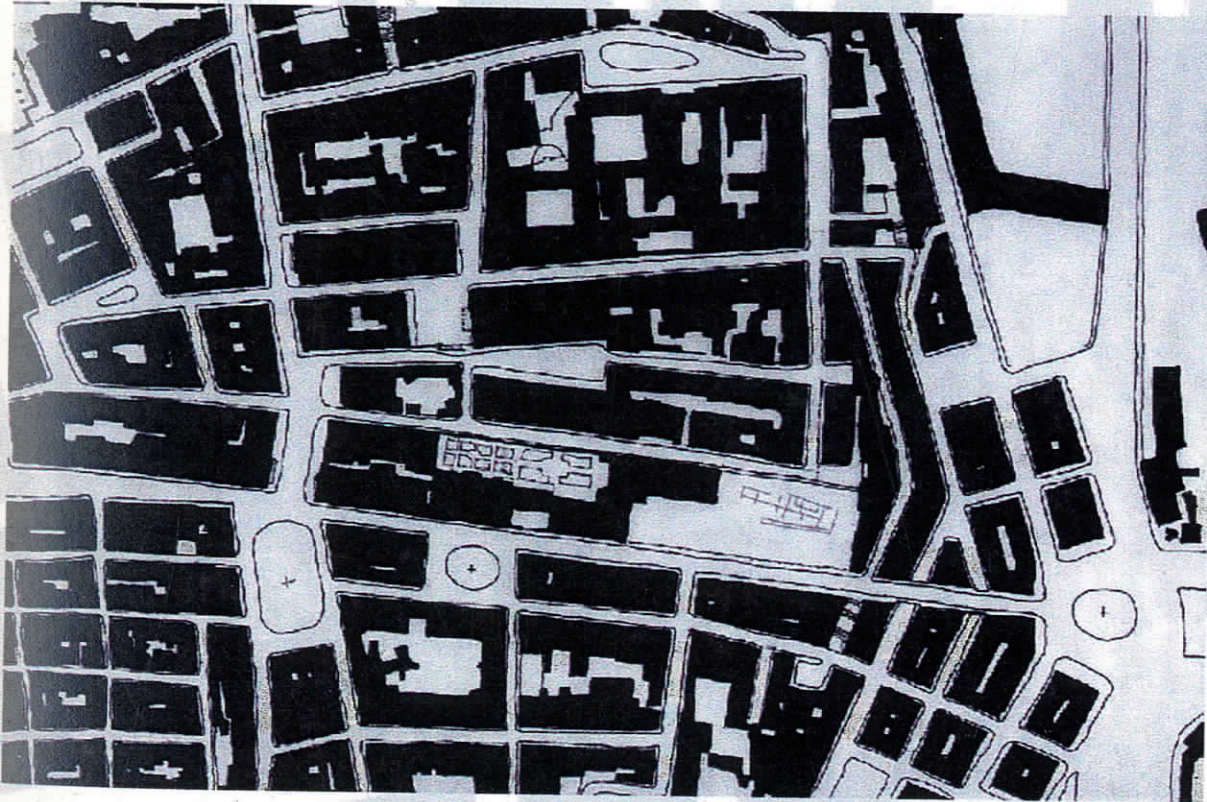
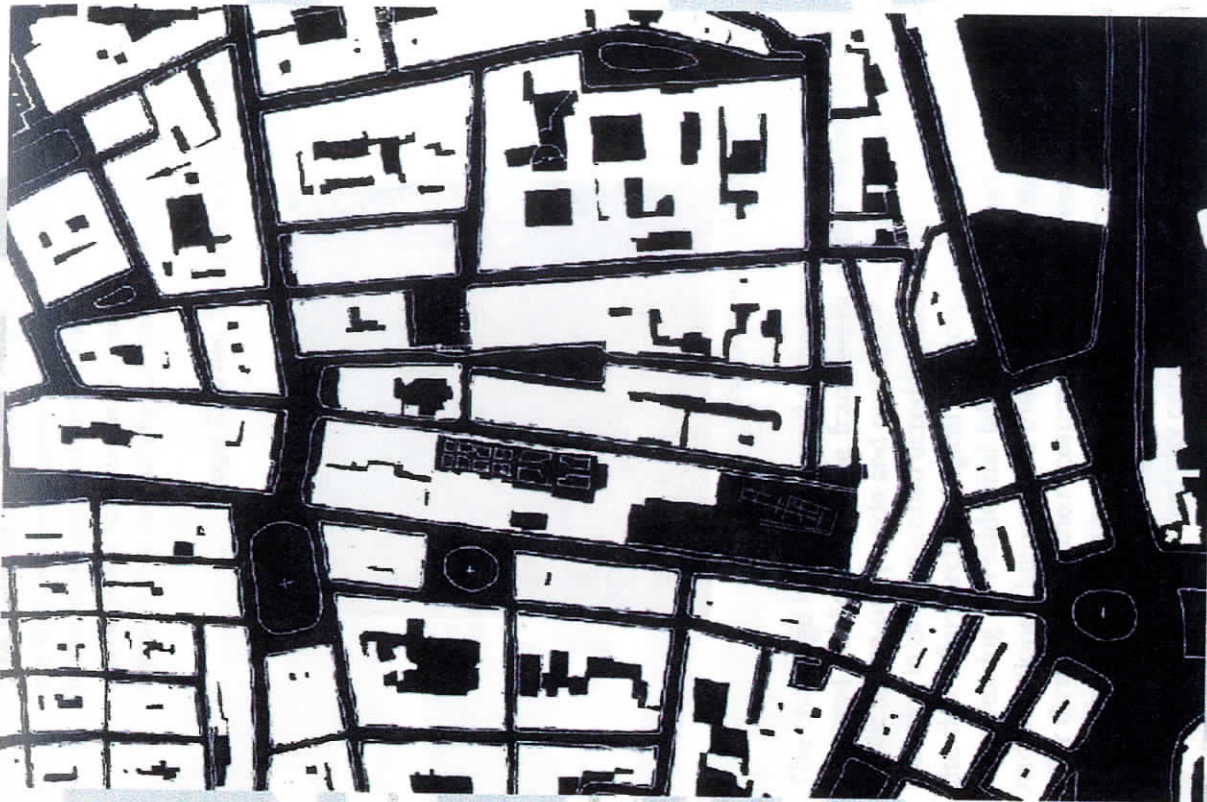


Figure-ground urban study reveals through hierarchy, fragmented blocks and inner open spaces.



An inverted figure-ground study reveals long narrow slivers of parallel (super) blocks, and denotes residual circulation and open space vs. built.



From our analysis of the site, both in its history, culture and physical context, and from our theoretical concepts, we have retained a list of important concepts and issues that will help us generate our program:

- concept of mapping traces through decoding
- concept of urban intervention as infill
- concept of urban artifact is integral of context
- concept of experience through the city
- concept of culture and needs in contemporary time
- concept of transformation of the city
- concept of temporal vs. permanent, paradigm of contingency
- issue of urban void in relationship to nature, memory and time
- issue of cultural context
- issue of re-adaptation of city center
- issue of archaeological artifact
- issue of ephemeral permanencies

With these in mind, we will explain why the suggestion for the site makes sense.

We propose that the site be only be partly "filled", as an address to its enduring condition as a recognizable urban void. The building program is double in function but unified in concept: a researchArchive for the History of Lisbon and an interactive new Media Cultural Library. Alongside, we propose an urban park that would help blend in the new with the old, preserving the site as part of the public realm.

"The library, as a place for the definition and the preservation of cultural and scientific memory, has always has as much to do with the construction of the present and the future as with the past"

Howard Bloch and Carla Hesse, *Future Libraries*

"The library of the future is inscribed where all texts can be summoned, assembled, and read – on a screen. In the world of remote relays made possible by digital and electronic communications, texts are no longer prisoners of their original physical, material existence."

Roger Chartier, "Libraries without walls"<sup>34</sup>



the Laurentian Library

The challenge here presented is the interaction between private and public within the framework of the institutions vs. public space-use (inside and outside). Another challenge is the blending in of a (re)constructed landscape on top of an abrupt site that offers archaeological artifacts. And yet another is the interweaving of residential fabric with a cultural one. As we had mentioned beforehand the conditions of the present site offer three aspects: the reconstruction and renewal of the damaged city coming to an end (boosting attraction back to the area), the surge of a "young" population that could come *populate* the semi-abandoned city center, and lastly an obvious void that is fragmented from the city by boundaries and debris. Both Rem Koolhaas and Stan Allen, as referred beforehand, preach for looser programs and fits that respond to the conditions of our present day society, as captor of diverse cultures and characterized by not-as-specific needs than the prior<sup>35,36</sup>.



This can only be done by extrapolating on and manipulating the urban layers in the context of the city; pushing for an attitude that critically responds to the complexity of the urban realm.

## On History and library typology

It seems necessary to analyze the evolution of the library not only in typology but also in concept, so that when designing one in the context of Lisbon and contemporary time, one has the bases for manipulation.

### On the concept of libraries

"Socrates thought that an awareness of our own ignorance should create a desire for the knowledge that eludes us"

Dominic Scott, Recollection and experience

The notion of library has existed since the dawn of History. Indeed, from the moment when man was able to keep written records of things, he has devised a space or place where to put them. So, if libraries were born at the individual level (each person) only later did they evolve into the public realm, as collectors of knowledge.

The analogy of libraries as repositories of knowledge is both physical and symbolic. However, one cannot forget that this storage is based on simple needs of availability and cataloguing which accompany didactic development.

Starting with the Hellenic and para-Hellenic civilizations which based themselves on the cult of culture, education and philosophy alongside a collective social structure, *knowledge* became a reflection of human intelligence.

The evolution of the library type responded to both an accumulated physical volume of written documents and a need for collective space.

### On type and history

To better understand the evolution of the typology, 5 chronological key segments have been identified:

I – The cultural myth of Alexandria as the site of the great Library of the Ancients seems to have been reflected to this day. The most plausible reason for this myth is the fact that, for over a thousand years, illiteracy reigned among part of the world's population (Europe especially) and therefore there was no need for libraries.

Ptolemies' library at Alexandria had over 200,000 rolls or manuscripts<sup>37</sup>, indeed a good amount of written documentation, which is representative of Antiquity's cultural strengths. The typology of libraries as individual buildings carried onto the Roman Empire until they started closing down in the fourth century AD.

II – With the decline of classical culture, also declined the search for scientific and philosophic knowledge, and started the long period of history often called the *dark ages*. Indeed, during most of the Middle Ages, the only part of the population that had access to books and knowledge was the clergy. In fact, theology was the only philosophy allowed and therefore the only instruction given came from monks and priests. In this the whole concept of bookkeeping and library changed. The only thing that remained from Antiquity had been the *armarium*, a piece of furniture in which manuscripts and books were kept.

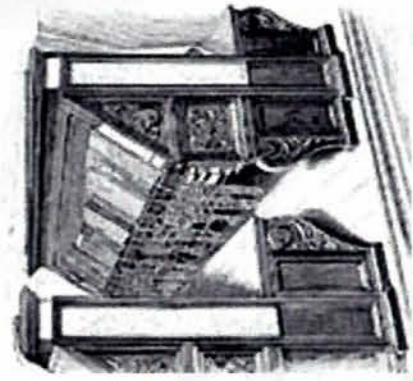
In the monasteries throughout Europe, a new concept developed: the carrel. This was the place for book reading and writing, usually an individual niche or alcove. It became a place (or thing) that was in the path of each monk's daily ritual. Later, as more books arrived and better communication was greeted, these "libraries expanded into rooms containing *lecterns*, which



were pieces of furniture with storage for books under an up-right angled surface for reading. These were often grouped with seats and soon developed into long collective benches. A *stall-system*, meaning a shelving bookcase over a lectern or



a Roman *armarium*



the bench *lectern*

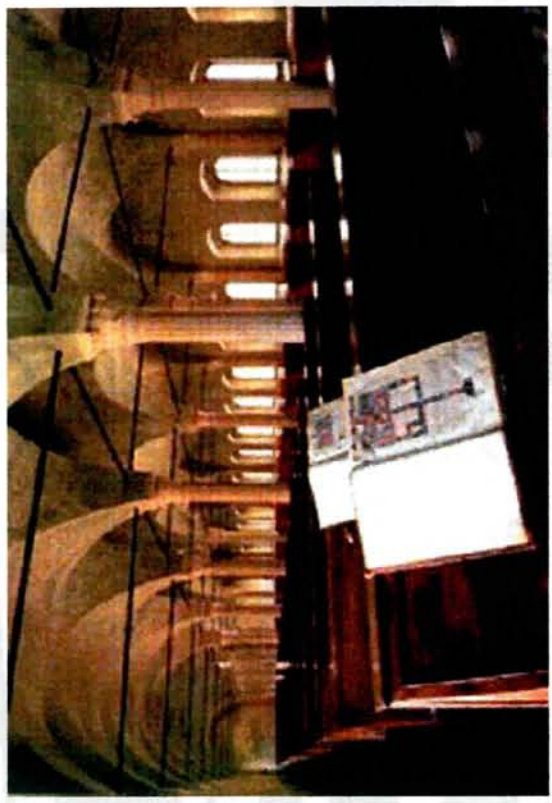
small desk, first appeared in the 13<sup>th</sup> century as to cope with more and more books that were being either written or collected.

III – An important transformation came with the invention of the printing press. Indeed, the sudden increase in book availability is said to have fueled the appearance of the Renaissance in 15<sup>th</sup> century Italy (along with all other important scientific discoveries). Humanism rapidly substituted scholasticism as culture spread among the population and a thirst for knowledge brought back classical models. With it, the pro-

gram of book collecting changed and so did the architecture of libraries.

The *Biblioteca Malatestiana* at Cesena (1447) is said to be one of the finest examples of new library rooms, even though still much based in a monastic realm and therefore in direct relationship with the basilica-type spaces that dominated among monasteries. It was a large columnated hall divided into a nave and side aisles. The nave at the center was mainly used for circulation.

This type did not remain for long, as Michelangelo soon brought



a novelty into the library typology. This was revealed in 1524 when he built the *Biblioteca Laurenziana* in Florence (S. Lorenzo), where the room was composed of a single hall without columns, following a functional requirement rather than a religious one<sup>38</sup>.

As the Renaissance spread to the rest of Europe, so did the library type, which also moved into the universities around Europe, namely in England and France. It was the English that actually recycled the *stall-system*, and filled their libraries with open bookcases that sat in rows parallel to each other.



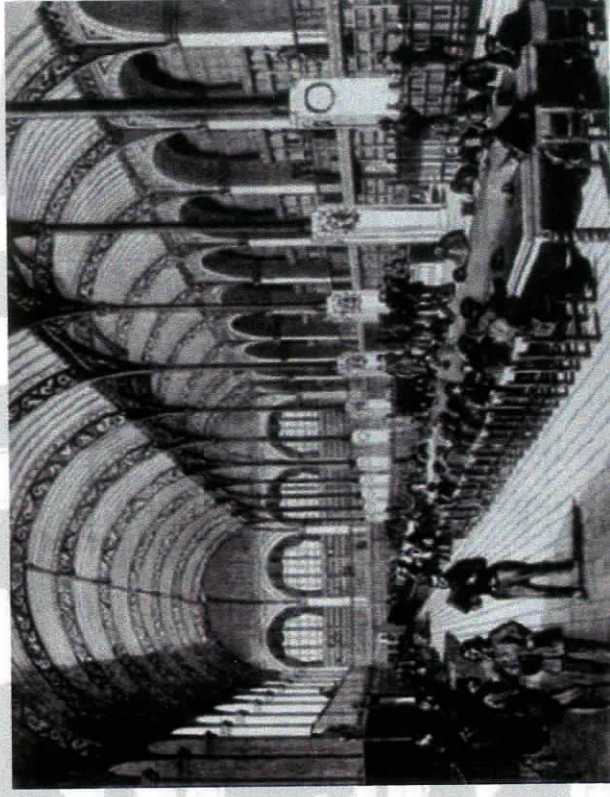
IV – A new layout transformation came in the late 16<sup>th</sup> century, this time with the wall system that was to remain up to the 20<sup>th</sup> century. With this system, bookcases were moved to become “part of the wall” and usually these fittings became the architecture of the rooms themselves. As library rooms became large, their ceilings took the shape of a barrel vault in order to accommodate the structural span. The library became a favorite of Baroque architecture and Enlightenment’s rationalisms especially after the appearance of Diderot’s *Encyclopédie*. The idea of supreme reference to all knowledge made of the library not only an even more distinguished center of research but also a celebrated collective space. It is interesting to note that the traditional library, in its typological development, was essentially an introverted building, where detail was much paid to the interior layout and rituals rather than its exterior.

V – Following this line of thought, we have a programmatic shift occurring in the late 19<sup>th</sup> century which has affected the planning of libraries ever since. With the ever-increasing number of books, the wall system becomes insufficient as its demand for space is too large; therefore, the stacking area is little by little separated from the reading area. The latter soon becomes the center space of each library as can be seen in the meticulously design of Labrouste’s *Bibliothèque Ste. Geneviève* (1843). The reading room becomes not only the main space but translates itself onto the exterior, as it becomes the key moment of the building. This separation of reading and researching (as social ritual) and stacking (as archive) is essential for the development of the modern library. One notices though that there is still a celebration of the book, and usually either a wall system or a stall system is still used in most libraries’ reading rooms.

The use of new materials (exposed wrought iron) is significant

cant in terms of modern architecture.

As a consequence of this transformation and separation of program, the 20<sup>th</sup> century brings a further innovation, which is the deformation of the enclosure independently of the library’s functional requirements: a physical collector of books.



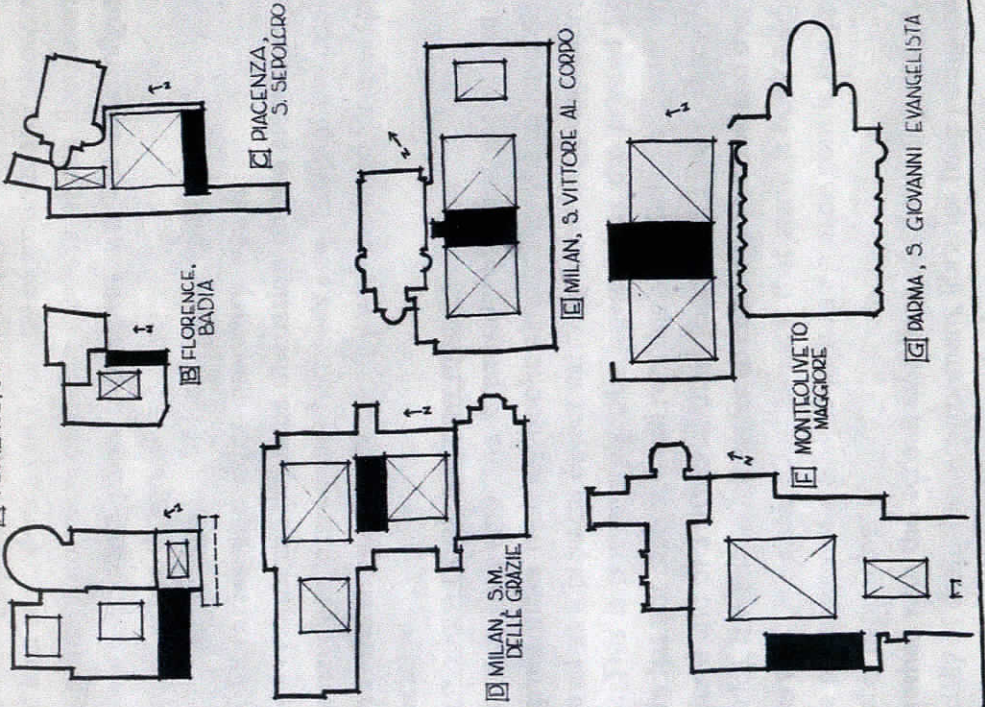
The reason not to add a 6<sup>th</sup> segment concerning the late 20<sup>th</sup> century developments is that the latter is still in its youth. One is of course referring to the electronic age as an influence of building type, space requirements and rituals. Many changes are happening especially in how we move through libraries and where these new functions are housed.

#### On libraries, gardens and urban settings

The reason to mention gardens/parks as a type often associated with libraries has to do with my contention of integrating a library into a site that contains traces of gardens in its history.

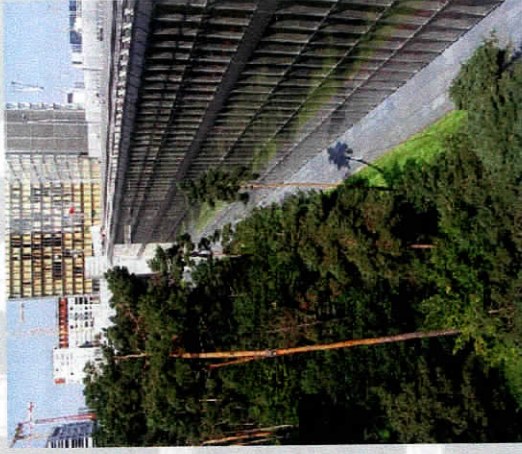


A FLORENCE, SS. ANNUNZIATA



As evidenced in this series of diagrams about libraries in Italian cloisters, one sees they the rooms they were either usually took up a side of the cloister or stood between two cloisters. Even though cloisters are not a typical garden and certainly do not bare any kind of mass collective function, they do however contain an inherent basis for urban design. The cloister garden form has been taken into the present by some un-

usual projects, the most recent being the *Bibliothèque Nationale de France* by Dominique Perrault, where a sunk rectangular courtyard populated by a forest of trees stands as a platonic symbol to the library researcher or visitor, who become removed from the city's realm and introduced into one of silence and meditation.



the "forest" of  
the BNF

So, if libraries are introverted buildings, why would there be a use for a park or garden? The semi-Library Park where Asplund's *Stockholm Public Library* sits, not only enhances the site for the building itself but reflects two other things: placing the library in a symbolic picturesque context and at the same time providing a public gesture for the city.

More often than within gardens however, city libraries have to or are already included in a dense urban fabric (in Europe at least). In order to make them recognizable public icons, their designs have taken two main expressions —library as object and library alongside urban piazzas or voids.

Also, if the notion of garden in the city is often associated with just a manipulation of the planes, one sees how the design of urban voids (both figure and ground) can be analogous to an



absence or desire of garden. It comes back to the idea of cloister as garden that the garden can also be an urban landscape. The idea of gardens as an interplay of grounds and planes was the primary concern of Italian gardens of the Renaissance. Conversely, urban parks themselves are less so configured through urban design.

### On Libraries and contemporary needs

To carry with the previous discussion on the electronic age, one needs to interweave the needs and rituals of the population at the end of the 20<sup>th</sup> century with the need for new space allocations.

### On modern rituals and new media

It is true that after the expansion of visual media and the Internet more recently, books almost seemed to have disappeared as a physical object carrying knowledge and information. This is not entirely true however, as the printed book form has not died and still remains a symbol of a "good" thing to have and of a material thing (becoming rare in this virtual world). It is still much easier to read from a book and there is a certain "*je ne sais quoi*" about it that attracts book-addicts. The popularity of websites such as Amazon.com is the proof of this happening.

Together with the accelerated lives of today's population, especially in the urban environment, libraries have relinquished all uses except one of research—hence the prevailing form of college libraries and special archives.

Again, one sees that with the creation OCLC (Online Catalog Library Center) and the expanse of online libraries, people are reaching online editions of written work directly from their homes through their computers; this acts as a double evidence of the ever-increasing networked and virtual world, which mirrors a disturbing alienation from our collective physical world.

So if our "libraries" are again becoming more individual (home-based) and less collective (social-based) by default, what can the institution do to prevent it.

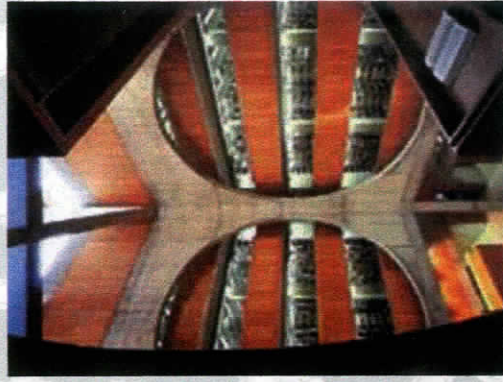
### On recent libraries

After a period of rational, cube-like boxes of book collection that dominated the architectural trend in the post-war era, our modern libraries are again turning themselves to the celebration of reading and research as a "warm" human ritual. In other words, if libraries are made for people then they will accommodate a need for well-being and comfort, which is certainly required while reading.

These libraries are looking to precedents of not such a distant past: Kahn and Aalto. The latter with his *Viipuri, Rovaniemi* or *Mount Angel Abbey* libraries was primarily concerned with space making and customization as driving forces behind his designs. So, the reading rooms became a main focus and sensorial experience dictated the layouts and position of furniture, bookcase and light inflow. Kahn, in his *Exeter Library* (1965-72), used more of a symbolic approach as well as cater-



Viipuri Library Reading Room



Kahn's Exeter Library



ing to the individual needs of the library users. Indeed, by carving an inner void out of the library cube to make it an immense atrium showing his focus on the experience of collective spaces, Kahn brings to the library the urban monumentality that it traditionally had. The development of the *study carrels* as a meticulous piece of furniture connected to the outer windows reveals that he was very much concerned about the individual ritual, as well as with comfort.

One critic offers a view on the development of libraries in Europe: "the architecture of the *doctrinal* library is monumental, access is controlled, and hosts a variety of events. That of the *liberal* is more informal, and accessible, but its activities limited to the silent world of books"<sup>39</sup>. One can argue that another such typological development is the multimedia library, which is a hybrid of the Anglo-saxon public library and of an archival or media library. The latter incorporates easy access and control, as well as offering events and being silent.

#### On libraries and new technologies

The integration of the computer and new information technologies into the library brings about two issues. On the one hand, space for these networks and terminals is required, which results in the allocation of computer pods or rooms as a main feature of the library. On the other hand, libraries are redeveloping into incorporating Internet-based centers as well as media centers for visual material and reproduction of information. Books no longer are the sole containers of information and many other things such as visual and audio material (film, tapes, software, CD-Roms) are increasing the holdings of each library.

The American public library type has taken an important step in defying its loss of function in the contemporary ritual. It was able to transform itself not only by providing free internet access based upon its inherent network and communication ca-

capacity<sup>40</sup> but also by taking on a social public event role, by organizing conferences, exhibitions and so forth. Norman Foster takes an evidence of this:

"the library is becoming socially more important than its content"

Norman Foster<sup>41</sup>

#### **On Site and program**

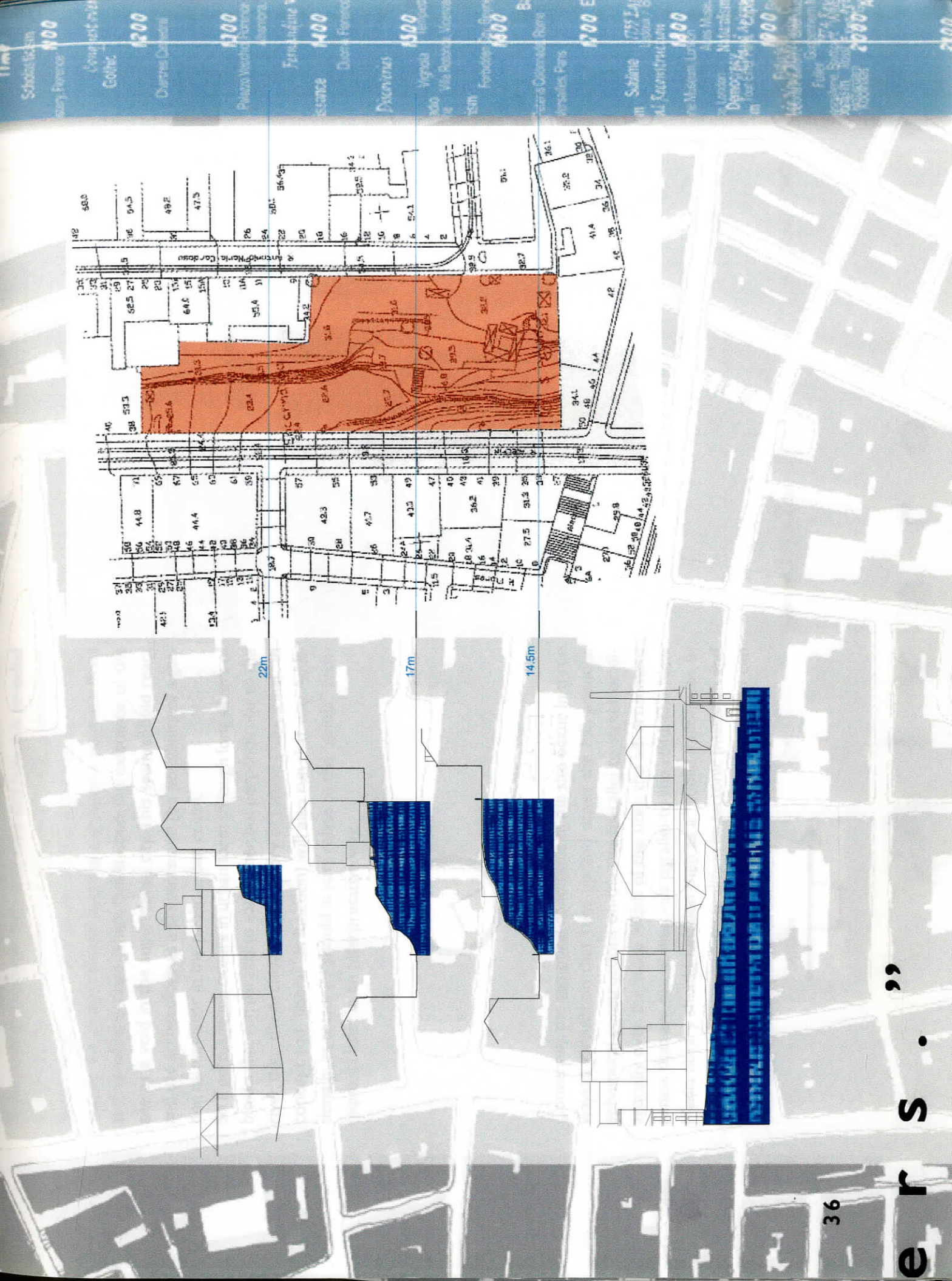
The location of the site in Lisbon, on the west boundary of the Chiado district and just up the hill on a fairly active circulation axis, offers many possibilities. I have explained how the idea of the "double-library" as a site-derived program came about. From the site analysis, one can see that the Chiado contains many cultural institutions, a tradition from the past, but none of them a library. Its conditions as a secondary center to the *Baixa*, is presented by its retail and commercial presence as a constant throughout the main streets. But overall, it is noticeable how an inherent residential population surrounds the site.

The recollection both through memory and experience of the place, rich in layers and traces of time, indicates an opportunity to reveal its past, as one that is essentially identified with Lisbon. Therefore the idea of a historical archive seems appropriate, especially hand in hand with archaeological vestiges. If one takes into consideration that the Chiado has been redeveloping to cater to a younger population, the project of a multimedia library also makes sense.

Three other characteristics "define" the site:

- an unevenly constructed landscape over an already steep site
- a history of gardens contained on terraces, evidences of the past
- a context of a neutral architectural wrapper dating back from the 18<sup>th</sup> century which is applied over a tectonic wooden structure, evidence of a repetitious construction technique.

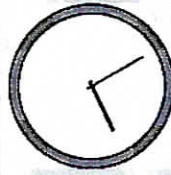






If the core of my thesis deals with time and how it is revealed in the city by permanence and temporality, the architectural form should then relate in part to that latter notion. In other words, the project should become a transition between fixed and variable, a seam which builds upon the existence of the site as a void in the super-dense city. This seam should react and use archaeology as a presence and the possibility of a garden as mediator in the public urban realm.

So if permanence occurs in urban form through long slivers of blocks that run parallel to each other, but perpendicular to the river, then the Archive of the history of Lisbon ("doctrinal" in concept and "liberal" in function) will also run that way. Additionally, its tectonics should in part relate to the "gaiola" technique, at least in an interpretative way.



Conversely, the temporal conditions of the site occur in three ways: a circulation that runs up and down the hill; previous ephemeral constructions on the site (parallel to street or diagonally over the steep width of the site); the advertisement panels that are put at intervals parallel to the road. The New Media library should function then as a "public multimedia library", which mirrors temporality in its tectonic (materials and construction) and freedom of interior partitions. It also can offer appropriate public circulation.





# Program description

The program would then include the limited access research archive and respective administration quarters, public areas and gallery spaces (indoors and outdoors) that would offer room for display (exhibitions, archaeological finds), a shared auditorium, an all-public media library center with café or restaurant, and some other spaces that could house cultural activities. As to the exterior spaces, an urban park/garden that allows a passing through the site, permitting phenomenal connections of the city to become part of an urban narrative or sequence.

(Service and mechanical spaces, as well as a small garage will be provided)

Space allocation	sq. ft	sq. m			
<b>Mixed program</b>					
Entrance and Lobby	3225	300	Map room	1075	100
Large Auditorium	10750	1000	Administrative	537	50
Exhibitions spaces / vestibule	5375	500	Small auditorium	1612	150
Learning center	2150	200	Bindery	269	25
Archaeological center	1612	150	Reproduction center	537	50
Cultural center (reception + rooms)	2150	200	Visual Center (incl. microfilm)	1720	16
Café - Bar	1612	150	Administration	2150	200
Restaurant	3225	300	Total	43859	4080
Total	30099	2800	<b>New Media Library</b>		
<b>Archive of the History of Lisbon</b>					
Internal lobby	2150	200	Entrance	537	50
Circulation	1075	100	Multi-room		
Reading Room	4300	400	Computer access		
Learning/study rooms	1612	150	Circulation check		
Individual Reading/Carrel rooms	2150	200	Periodical desk		
Computers			Total	7525	700
Large access room	1290	120	Reading / Work rooms	4300	400
Small access areas	1075	100	Learning rooms	1612	150
Stacks (open-access)	10750	1000	Meeting rooms	1075	100
Stacks (closed-access)	6450	600	Stacks	3225	300
Map room	2150	200	Media center		
Special collection			Storage	2150	200
Reading Room	537	50	Viewing rooms	2150	200
Meeting Room	537	50	Computer access	1075	100
Stacks	1881	175	Reproduction	806	75
			Media studios	2150	200
			Graphics	806	75



Circulation  
Administration

Total

SubTotal

Circulation - Mechanical (NTG 33%)

Garage

Total Building Area

806

2150

30368

104327

34428

21500

160254

75

200

2825

9705

3203

2000

14908

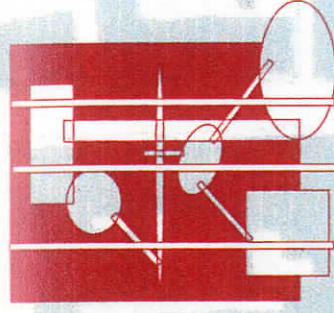
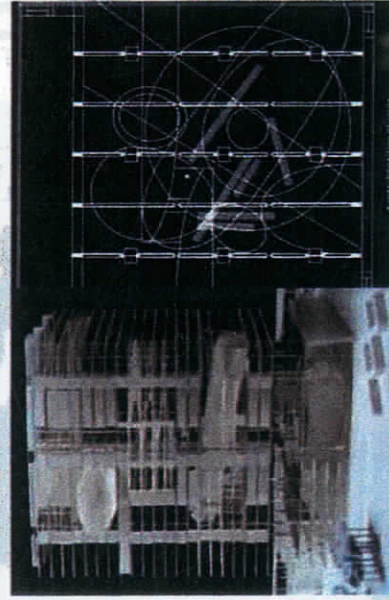
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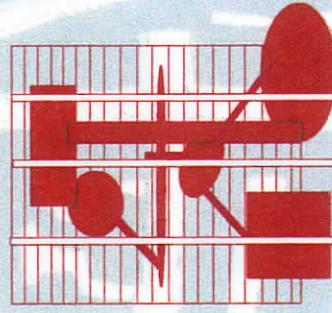
Rem Koolhaas has contributed quite a bit to the task of emancipating our libraries as both keepers of knowledge and stations of information interchange. In that, the project for the *Bibliothèque de France* and the construction of the *Seattle Public Library*, are both inherent public gestures of a large scale. In fact, they have a certain character mimicking that of a train station or an airport, as interfaces of people.

Koolhaas' strategy in the two projects delineates two major ideas: one of transparency (within and to the outside) and one of program separation. As he plans for "mass consumption", he has to be rational about it, a quality that he takes from past typologies. Indeed, all of the spaces are open and simple; the complexity comes from the arrangement of these in the third dimension.

The *Bibliothèque de France* organizes itself into a superstructure, covered with glass, into which are grafted the different program requirements. These become objects floating within the space, making us think of an architecture of voids; that is the carving out of figural voids in a clear plexiglas rectangular volume.



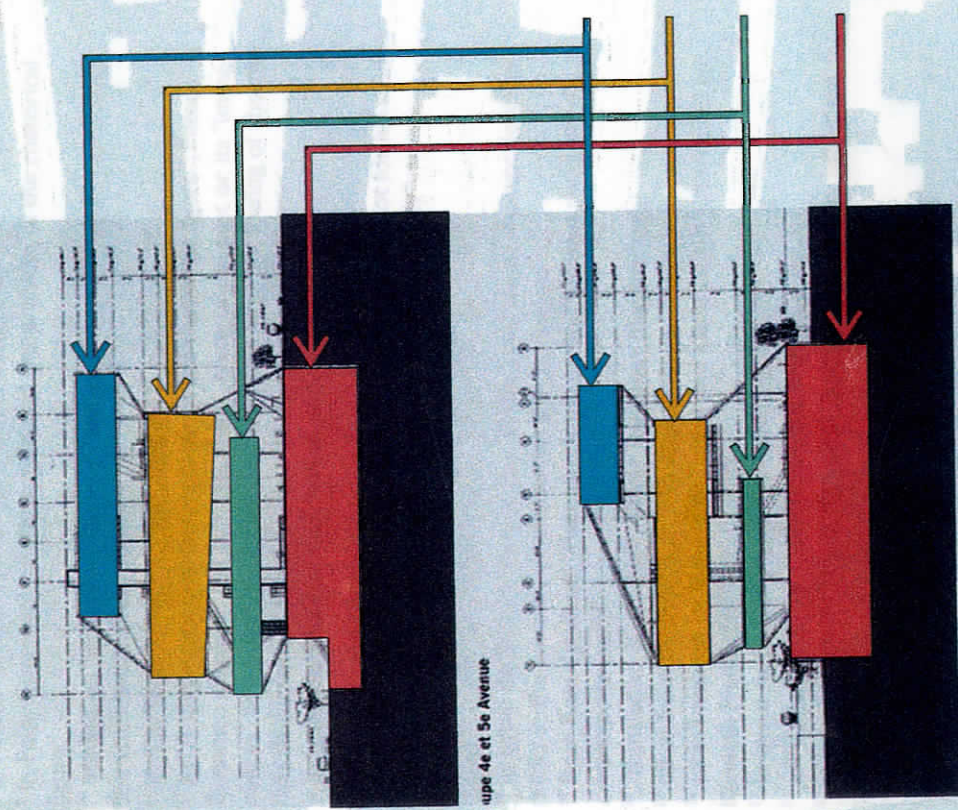
"carved" solid : spacemaking objects



figures in the void : objects within space



The approved *Seattle Public Library* is arranged as a vertical stack of parallelogram volumes, each of them containing a piece of the program (basement, entry, new media, books, archives, administration), which are displaced in plan, as if they were magnets floating among each other. The structure is based on a neutral universal grid. The skin becomes the main tectonic characteristic of the building, giving it the look of an polymorph armature.



ADMINISTRATION ("OFFICE")

BOOKSTACKS-READING ("LIVING ROOM")

NEW MEDIA-INTERNET ("KID'S ROOM")

GARAGE-SERVICE-LOBBY ("ENTRANCE")



- <sup>1</sup> This equation is equivalent to the oxidation of propane: propane + oxygen → carbon dioxide + water
- <sup>2</sup> Antoine Laurent Lavoisier 1743-1794; French, father of modern chemistry
- <sup>3</sup> in James Corner's Taking measures across the American landscape p.121
- <sup>4</sup> Here, phenomenal relates to phenomenism, a doctrine set forth by Hume that sees perceptual phenomena as alien to innate knowledge of the mind, thus prone to timeless inquiry and fascination.
- <sup>5</sup> in David Turnbull's Maps are territories, science is an atlas p.4
- <sup>6</sup> in David Turnbull's Maps are territories, science is an atlas p.61
- <sup>7</sup> in Geoffrey Broadbent's "A plain's man guide to the theory of signs in architecture"
- <sup>8</sup> in Vittorio Gregotti's "Territory and architecture"
- <sup>9</sup> in Peter Eisenman's "Architecture and the problem of the rhetorical figure"
- <sup>10</sup> studies on "collective memory" are extensive in Freud's psychology and Durkheim's anthropology
- <sup>11</sup> in Christine Boyer's CyberCities p.11
- <sup>12</sup> in "Architecture and the problem of the rhetorical figure", Peter Eisenman discusses the fact that the trace of the past or its "immanences" as a possible presence constitute a inherent feeling of absence that characterizes the dynamism of the living city.
- <sup>13</sup> in Ignasi de Solà-Morales' "Weak architecture"
- <sup>14</sup> *Ibid.*
- <sup>15</sup> Aldo Rossi (Architecture of the city) references Chabot for his studies on what makes the *âme de la cité* or the "soul of the city"
- <sup>16</sup> in Aldo Rossi's The architecture of the city
- <sup>17</sup> *Ibid.*
- <sup>18</sup> in Ignasi de Solà-Morales' essay "From contrast to analogy: developments in the concept of architectural intervention"
- <sup>19</sup> from Rem Koolhaas' "Postscript: introduction for new research *the contemporary city*"
- <sup>20</sup> "translation is a mode" Walter Benjamin, Illuminations
- <sup>21</sup> taken from the American Heritage College Dictionary
- <sup>22</sup> term invented by Alexander Tzonis and Liane Lefaivre, also used by Kenneth Frampton
- <sup>23</sup> in Ignasi de Solà-Morales' "Weak Architecture"
- <sup>24</sup> in "Collage city" by Colin Rowe and Fred Koetter
- <sup>25</sup> in James Corner's Taking measures across the American landscape p.121
- <sup>26</sup> information from Câmara Municipal de Lisboa
- <sup>27</sup> word used by Gonçalo Byrne, in his essay "Lisbon: a vulnerable city"
- <sup>28</sup> in Rem Koolhaas' "Postscript: introduction for new research *the contemporary city*"

- <sup>29</sup> in "Collage city" by Colin Rowe and Fred Koetter
- <sup>30</sup> here referring to the Muslims as non-believers in the Christian faith.
- <sup>31</sup> by constructed we mean it was built by man.
- <sup>32</sup> In Gonçalo Byrne's "Lisbon: a vulnerable city"
- <sup>33</sup> in Geoffrey Broadbent's "A plain's man guide to the theory of signs in architecture"
- <sup>34</sup> in Future Libraries, edited by Howard Bloch and Carla Hesse
- <sup>35</sup> "Postscript: introduction for new research the *contemporary city*" and "Beyond delirious", both by Rem Koolhaas
- <sup>36</sup> "Diagrams matter" by Stan Allen
- <sup>37</sup> in Nicholas Pevsner's History of building types, p.91
- <sup>38</sup> The architecture of the monastic library in Italy 1300-1600 p.29
- <sup>39</sup> Michel Melot in "Galaxie Bibliothèques"
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